

## BEFORE THE NATIONAL GREEN TRIBUNAL

### WESTERN ZONE BENCH, PUNE

#### ORIGINAL APPLICATION NO. 210/2024 (WZ)

#### IN THE MATTER OF:

SUNIL RAMCHANDRA SHINDE & ANR.

...APPLICANTS

VERSUS

STATE OF MAHARASHTRA & ORS.

...RESPONDENTS

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**6. PROOF OF SERVICE**

**83**

*Through*

**1180**



**CHAMBERS OF TUSHAR KUMAR**

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**Chambers@tusharkumar.in**

**DATE: 03.06.2026**

**BEFORE THE NATIONAL GREEN TRIBUNAL****WESTERN ZONE BENCH, PUNE****ORIGINAL APPLICATION NO. 210/2024 (WZ)****IN THE MATTER OF:**

SUNIL RAMCHANDRA SHINDE &amp; ANR. ...APPLICANTS

VERSUS

STATE OF MAHARASHTRA &amp; ORS. ...RESPONDENTS

**REJOINDER ON BEHALF OF THE APPLICANTS TO THE JOINT  
REPLY FILED BY RESPONDENT NOS. 5-7***The Applicants most respectfully submit as under:*

That the present Rejoinder is being filed in response to the Joint Reply filed by Respondent Nos. 5-7, which is misconceived, misleading and contrary to the material on record. The Respondents have attempted to divert the core issue of environmental degradation and public health hazards caused due to unregulated horse-related activities in Matheran by attributing the same to other extraneous factors.

The Applicants are, therefore, filing the present Rejoinder by way of a Para-wise reply to the contents of the said Reply, which is as under:

1. That the contents of **Para 1** of the Reply are, to the extent they record that the Respondent Nos. 5–7 have filed a joint reply, a matter of record and hence do not call for any specific reply. However, the assertion that the present Application adversely affects the livelihood of the Respondent Nos. 5–7 is denied as being misconceived and misleading. It is submitted that the present Application seeks reasonable regulation, reduction to sustainable levels, and implementation of necessary environmental safeguards in an Eco-Sensitive Zone. The same is necessitated in view of serious and continuing environmental degradation and public health concerns. It is further submitted that the issue of livelihood cannot be considered in isolation and must be balanced with the right to a clean and healthy environment, which forms part of **Article 21** of the Constitution of India. Applicants are conscious of the livelihood concerns of persons dependent upon such activities and therefore seek a balanced regulatory framework, including appropriate rehabilitation and alternative livelihood measures by the State authorities.
  
2. That the contents of **Para 2** contain submissions made by the Respondent Nos. 5–7 which are denied to the extent they are contrary to the facts on record and the material placed before this Hon'ble Tribunal, which are specifically dealt with in the subsequent Para-wise replies.

2(i) That the contents of **Para 2(a)** are denied to the extent they seek to justify unregulated horse-related activities on the basis of historical practice and livelihood. The reliance on tradition and economic dependence is misplaced and cannot override the requirement of environmental protection in a notified Eco-Sensitive Zone. The material on record clearly establishes that excessive and unregulated horse activity, coupled with lack of proper waste management, has resulted in environmental degradation and public health concerns. The Applicants reiterate that the present Application seeks only reasonable regulation and sustainable management of such activities, and not their elimination. It is submitted that the right to livelihood, though protected, is subject to reasonable restrictions in the interest of environmental protection under **Article 21 of the Constitution of India**. It is further submitted that the present contention is contrary to the **Precautionary Principle** and **doctrine of sustainable development**, as consistently applied by this Hon'ble Tribunal. Hence, the said submission is misconceived and liable to be rejected.

2(b) That the contents of **Para 2(b)** are denied to the extent they seek to shift the focus from the issues raised in the present Application. While unauthorized construction and encroachments, if any, are separate matters requiring action by the competent authorities, the same cannot be used as a defence to justify or dilute the adverse environmental impact caused by

unregulated horse-related activities. The Applicants submit that the present proceedings are specifically concerned with pollution, waste accumulation and public health hazards arising from excessive horse population and lack of proper management, which remain unaddressed by the Respondents.

2(c) That the contents of **Para 2(c)** are denied as being wholly irrelevant and misconceived. The reliance on historical anecdotes and past usage of horses has no bearing on the present environmental issues arising in a notified Eco-Sensitive Zone. The fact that horses were historically used cannot justify their unregulated and excessive use in present circumstances, particularly when scientific material on record clearly demonstrates environmental degradation and public health concerns. The Applicants submit that the issue at hand is one of regulation and environmental compliance, which cannot be defeated by reference to historical or cultural narratives.

2(d) That the contents of **Para 2(d)** are denied to the extent they are sought to be relied upon as a justification for the present unregulated conditions. Mere reliance on the Matheran Rules of 1959 is misplaced, as the said Rules, even if applicable, contemplate regulation of horse-related activities, including designated stabling and controlled management. In fact, Notification No. 29 under the said Rules specifically provides that no

horse or cattle shall be kept in the Bazaar Area except with prior permission of the District Collector, thereby recognizing the necessity of restricting horse presence within congested public area. The Applicants submit that the present issue arises precisely due to non-compliance and lack of effective implementation of such regulatory provisions, resulting in horses being kept and operated in a manner causing environmental degradation and public health concerns.

2(e) That the contents of **Para 2(e)** are denied to the extent they seek to attribute environmental degradation solely to commercialization and other activities. While the constitution of the Monitoring Committee and its observations are matters of record, the Respondents have failed to acknowledge that horse-related activities constitute a significant and continuing source of solid waste in the form of dung, which has not been scientifically managed. The increase in waste generation over the years, irrespective of its source, only reinforces the need for strict regulation, proper waste management, and control of all contributing factors, including excessive and unregulated horse population, which remains unaddressed by the Respondents.

2(f) That the contents of **Para 2(f)** are denied to the extent they seek to deflect attention from the issues raised in the present Application. The references

to unauthorized constructions and inaction by authorities, even if assumed to be correct, do not absolve the Respondents from addressing the environmental impact caused by unregulated horse-related activities. It is submitted that the observations of the Ranganathan Committee regarding soil erosion, in fact, support the Applicants' case that urgent and effective measures are required to prevent ecological degradation. It is submitted that Matheran consists of approximately 54 km of roads, out of which 7 km presently comprise clay paver block pathways. In the year 2014, Monitoring Committee had approved introduction of clay paver blocks to control soil erosion in the Eco-Sensitive Zone. It is pertinent to note that the State Government, in its Additional Affidavit filed before the Hon'ble Supreme Court, has relied upon the IIT Bombay Report titled "*Advisory Support on the Use of Clay-based Paver Block Roads in Matheran Hill Station Municipal Council*", which pertains to erosion control and road stabilization measures. Recent reports submitted by IIT Bombay and NEERI before the Hon'ble Supreme Court have also recognized that such measures assist in preventing soil erosion and surface degradation. A copy of the said Additional Affidavit is annexed herewith as **ANNEXURE – A**. However, due to limited implementation of such measures, unrestricted horse movement on exposed soil pathways continues to aggravate erosion and environmental damage.

2(g) That the contents of **Para 2(g)** are denied. The observations regarding unlicensed horses and the need for designated stables, in fact, *support the Applicants'* case that there exists lack of proper regulation and infrastructure in Matheran. The failure of the authorities to provide sufficient and properly regulated stables cannot justify the continued unregulated keeping and movement of horses in residential and environmentally sensitive areas. It is submitted that a large number of horse stables are presently situated within densely populated residential and market areas where approximately 2000 residents reside in close proximity. The Environmental Monitoring Report prepared under the aegis of Dr. Babasaheb Ambedkar Technological University has also noted that unmanaged accumulation of horse dung may result in various health hazards and diseases. In such circumstances, relocation of horse stables away from residential areas and proper regulation of horse movement become necessary in the interest of public health, sanitation. It is further submitted that the Health Camp Report dated **21.12.2024** conducted on **27.09.2024** by **People for the Ethical Treatment of Animals (PETA) India & Animal Rahat** in collaboration with the Maharashtra State Animal Husbandry Department records that a majority of equines used in Matheran were found to be undernourished, overworked, and suffering from injuries, lameness, infections and other serious health conditions. The report also highlights improper care, unsanitary conditions, and dung

accumulation near stabling areas, indicating serious animal welfare and public health concerns. The Health Camp Report dated **21.12.2024** is annexed herewith as **ANNEXURE – B**. It is further submitted that electronic registration/microchipping of horses may assist the authorities in identifying illegal and unlicensed horses. The Applicants submit that more than 100 horse licenses are allegedly being used by persons other than the original license holders, which requires strict verification and regulatory control. Further, the contention that soil erosion is caused by multiple factors does not absolve horse movement from being a contributing factor, which is required to be effectively regulated and managed.

2(h) That the contents of **Para 2(h)** are denied to the extent they seek to attribute environmental degradation solely to unauthorized constructions and other activities. While such issues, if any, may require action by the concerned authorities, the same cannot be used as a defence to negate or minimize the significant impact of unregulated horse-related activities. The material on record clearly establishes that accumulation of horse dung, lack of scientific waste management, and excessive horse movement contribute substantially to air, soil and water pollution. The existence of other sources of pollution does not absolve the Respondents, and all contributing factors, including horse-related activities, are required to be strictly regulated in an Eco-Sensitive Zone.

- 2(i) That the contents of **Para 2(i)** are denied as being misleading and contrary to the material on record. The mere assertion that horse dung is dumped at designated sites does not establish that the same is being scientifically collected, treated or disposed of in an environmentally compliant manner. In the absence of proper waste management systems, spillage, runoff and accumulation of dung in surrounding areas continue to cause pollution and health hazards. The contention regarding the number of licensed horses is also misconceived, as the issue is not merely of licensing but of carrying capacity, regulation and environmental sustainability in an Eco-Sensitive Zone. It is further submitted that horses presently move across almost every part of Matheran spread over approximately 56 km of roads, making effective collection and management of horse dung extremely difficult in the absence of designated routes and regulated movement.
- 2(j) That the contents of **Para 2(j)** are denied to the extent they seek to shift the focus of the present issue onto e-rickshaws and other extraneous factors. The allegations regarding speeding, honking and nuisance caused by e-rickshaws do not dilute or negate the environmental impact caused due to accumulation and improper management of horse waste in the Eco-Sensitive Zone. The contention that horses are far away from water bodies is incorrect and contrary to the material on record. The MPCB report itself

records higher pollution levels during monsoon season, indicating that unmanaged dung runoff adversely impacts nearby water bodies. It is further submitted that Charlotte Lake, being an important source of water supply for Matheran, is vulnerable to contamination due to runoff from horse waste during monsoon. Another reservoir, namely Simpson Tank, has reportedly remained unusable for several years due to contamination concerns. In such circumstances, maintaining a reasonable buffer distance between horse movement/stabling areas and lakes or reservoirs is necessary in the interest of protection of water quality, public health and environmental safety. It is further submitted that the Zonal Master Plan approved by MoEF&CC itself records that Plot No. MP-93, reserved for parking and logistics purposes, was being encroached upon by horses and that horse dung dumped in the area had contaminated the nearby Simpson Tank, for which eviction of horses from the said area was proposed. The allegations relating to sewage discharge from hotels and e-rickshaws are denied as being irrelevant.

- 2(k) That the contents of **Para 2(k)** are denied to the extent they seek to justify the present situation on the ground of alleged non-availability of sheds or encroachments. Even assuming the same to be correct, it cannot justify unrestricted movement of horses in residential and crowded public areas. The Monitoring Committee had previously directed the Municipal Council

and local police authorities to regulate horse movement in market areas. It is pertinent to note that the Matheran Monitoring Committee in its meeting dated **06.05.2017** had specifically resolved that horses from Tappal Peti Naka at Punyashlok Ahilyabai Holkar Chowk shall be diverted towards Kasturba Road and responsibility for implementation was entrusted to the Chief Officer of the Municipal Council and the Police Authorities of Matheran Police Station. The subsequent Monitoring Committee meeting dated **02.06.2017** also took note of the resolution restricting horse movement in the market stretch. A Copy of the Minutes meeting dated **02.06.2017** is annexed herewith as **ANNEXURE – C**. However, the said directions have not been effectively implemented, and horses continue to move freely across the crowded Mahatma Gandhi Bazaar Road and adjoining public areas. During weekends and vacation periods, approximately **5000–6000** tourists visit the Bazaar area, creating serious safety concerns, particularly for women, senior citizens and children. It is further submitted that on **01.05.2026**, **an 8-year-old tourist namely Augustine Larson Serejan** reportedly sustained serious injuries after being kicked by an uncontrolled horse in the market area and had to be shifted to Panvel Hospital for urgent treatment. The Applicants submit that proper zoning of routes and designated horse movement areas is necessary in the interest of public safety and effective management. The Applicants submit that proper zoning of routes and designated riding areas, similar to

the system followed in Mahabaleshwar and Panchgani, is necessary for effective regulation of horse movement in Matheran. It is further submitted that horse movement near densely crowded market areas, particularly around schools, hospitals, government offices and places of worship, also requires appropriate restriction and regulation.

- 2(l) That the contents of **Para 2(l)** are misplaced and not relevant to the present case. The issue before this Hon'ble Tribunal is specific to the environmental conditions and ground realities in Matheran, where unregulated horse movement and improper waste handling are causing serious concerns. Reference to feral horses in some other region has no connection with the present matter. The Applicants are not against horses but are only seeking proper regulation in view of the ecological sensitivity of the area, which the Respondents have failed to address.
- 2(m) That the contents of **Para 2(m)** are denied as being misleading and not applicable to the facts of the present case. The comparison with other livestock and regions across India is wholly irrelevant, as the issue herein pertains specifically to the fragile Eco-Sensitive Zone of Matheran, which has its own distinct carrying capacity and environmental limitations. The Applicants are not singling out horses arbitrarily but are addressing the specific and visible impact caused due to their unregulated presence,

particularly in relation to waste accumulation, soil erosion and contamination of water bodies. The contention that only waste management is required overlooks the ground reality that, in the absence of effective systems, the existing scale of horse-related activities itself is contributing to environmental stress. The Respondents have failed to address these specific concerns and have instead relied on general comparisons which do not advance their case.

- 2(n) That the contents of **Para 2(n)** are denied to the extent they are misleading and not borne out from the record. It is submitted that the present Application does not seek elimination of horses but is limited to regulation and scientific management of horse-related activities in view of the prevailing environmental and public health concerns in Matheran. The allegation that the Applicants seek to convert Matheran into an “*e-rickshaw only*” hill station is incorrect and denied. The reliance placed on the judgment of the Hon’ble Supreme Court is misplaced, as the issues considered therein arose in a different factual context and the present proceedings, are based on subsequent reports, environmental assessments and ground realities demonstrating continuing environmental degradation caused due to unmanaged horse-related activities. Mere absence of specific directions regarding horse dung in the said proceedings cannot be construed to mean that no environmental concerns exist. It is further

submitted that even as per the Respondents' own stand, out of approximately 660 horses, nearly 460 are being used primarily for tourism and joy rides, It is further submitted that despite the draft Eco-Sensitive Zone notification issued in February 2002 placing restrictions on additional tourist-related activities, the Municipal Council by Resolution dated **18.04.2002** reportedly increased the number of licensed horses from 250 to 450, largely for tourism and joy rides, whereas only around 200 ponies are engaged for essential transport purposes. This itself indicates that a substantial portion of horse-related activity is recreational in nature and capable of reasonable regulation and reduction. In such circumstances, eco-friendly alternatives such as e-tempos/e-rickshaws deserve consideration for limited transport purposes. It is further submitted that even the State of Maharashtra, on considerations of public safety and welfare, has replaced horse-drawn victories with battery-operated buggies in urban areas. The Hon'ble Supreme Court, in the **year 2022**, permitted a pilot project for e-rickshaws in Matheran to examine feasibility and environmental impact, pursuant to which the Municipal Council had procured 7 e-rickshaws. It is further submitted that the General Body of the Matheran Municipal Council, by Resolution dated **16.02.2026**, has accorded in-principal approval for introduction of E-Tempos as an eco-friendly alternative for goods transportation within Matheran, subject to statutory approvals. A copy of the Resolution dated **16.02.2026** is annexed

herewith as **ANNEXURE – D**. It is respectfully submitted that, on the same principle on which the Hon’ble Supreme Court permitted a pilot project for E-Rickshaws to assess environmental feasibility and public utility, a similar pilot-based approach may also be considered in respect of E-Tempos as a partial substitute for pony-based transport. The Applicants submit that continuation of such controlled pilot measures may assist in reducing environmental burden while balancing livelihood concerns. It is further submitted that in *Gauri Maulekhi v. Government of Jammu & Kashmir* concerning horse and mule activities at **Vaishno Devi**, the Hon’ble National Green Tribunal had also directed the concerned authorities to formulate a rehabilitation plan for persons dependent on such activities while addressing environmental concerns. The said proceedings demonstrate that environmental regulation and rehabilitation measures can be considered simultaneously in ecologically sensitive areas.

3. That the contents of **Para 3** are denied to the extent they are misleading and selectively rely upon the observations of the Joint Committee. It is submitted that merely describing horse dung as “*valuable manure*” does not address the ground reality in Matheran, where there exists no effective system for its scientific collection, treatment or disposal. In the absence of such mechanisms, the accumulation of dung in public areas continues to pose serious environmental and public health concerns. The Respondents

have failed to demonstrate any concrete steps taken to implement the said recommendation of conversion into manure, and therefore, the reliance on such observation without actual compliance is misplaced and does not mitigate the ongoing environmental impact. It is further submitted that the **Environmental Impact Assessment Report** conducted under the aegis of the Maharashtra Pollution Control Board clearly establishes that accumulation and mismanagement of horse dung has resulted in **significant air, water and soil pollution**, including **elevated particulate matter levels, faecal contamination of water bodies and degradation of soil quality**. The report further concludes that equine activity at the present scale is a **dominant and continuous source of environmental stress** in Matheran, thereby **negating the Respondents' contention** that horse dung is being effectively utilized or managed as a beneficial resource.

4. That the contents of **Para 4** are denied to the extent they seek to dilute the environmental impact caused in Matheran. As per the report, unmanaged accumulation and runoff of horse dung near trails, stables and stagnant water bodies has resulted in air, water and soil pollution, thereby establishing continuing environmental degradation and public health concerns. The contention that the issue is merely one of “*management failure*” does not negate the fact that equine activity at the present scale is causing serious ecological stress within the Eco-Sensitive Zone. It is

further submitted that the Environmental Monitoring Report records presence of heavy metals in water samples despite absence of petrol or diesel vehicles in Matheran. The Hon'ble Tribunal, in its Order dated **30.01.2026**, has recorded that **PM10 and PM2.5 levels breached CPCB standards due to equine dung emissions and dust from unpaved roads; E. coli contamination in water samples confirmed fecal contamination almost certainly from horse dung;** and soil quality assessment showed highest environmental and public health risk during monsoon season. The Joint Committee has further concluded that equine activity in its present scale and spatial form is environmentally unsustainable in Matheran Eco-Sensitive Zone and has recommended strict regulation and phased reduction of horse numbers, relocation of stables outside ESZ limits and zoning of routes. Hence, the reliance placed by the Respondents on selective portions of the report is wholly misplaced.

5. That the contents of **Para 5** are denied to the extent they seek to draw an incorrect and misleading parallel with the situation at Kufri. Therefore, the reliance on the said case is misplaced and does not advance the case of the Respondents.
6. That the contents of **Para 6** are denied as being misleading, misconceived and devoid of merit. The said Order does not in any manner support the

case of the Respondents. Hence, the reliance placed on the Kufri matter is wholly misconceived and untenable in the facts of the present case.

7. That the contents of **Para 7** are denied as being misleading and selectively presented. It is submitted that the reliance placed on the Order dated 22.04.2025 passed by the Hon'ble Tribunal in the Kufri matter is misconceived and does not support the case of the Respondents. In such circumstances, the said Order cannot be relied upon to draw any adverse inference or to justify the Respondents case.
8. That the contents of **Para 8** are denied as being misleading and incorrectly presented. It is submitted that the reliance placed on the Order dated 14.10.2025 passed by the Hon'ble Tribunal in the Kufri matter is misconceived and does not support the case of the Respondents. Hence, the reliance placed thereon is wholly misplaced and liable to be rejected.
9. That the contents of **Para 9** are denied as being misleading and misconceived. It is further submitted that even in the Kufri matter, the Hon'ble Tribunal emphasized regulation, scientific management and implementation of remedial measures to address environmental degradation. Therefore, the reliance placed by the Respondents on the said

proceedings to justify the present unregulated horse-related activities in Matheran is misplaced and liable to be rejected.

10. That the contents of **Para 10** are denied as being misconceived and speculative. While the need to balance environmental concerns and livelihood is acknowledged, the same cannot be based on speculative proposals without proper assessment of environmental impact, carrying capacity and regulatory compliance.


11. That the contents of **Para 11** are denied as being misconceived and unwarranted. While the need to balance environmental concerns and livelihood is acknowledged, the same cannot be based on speculative proposals without proper assessment of environmental impact, carrying capacity and regulatory compliance. Hence, the present submissions are liable to be rejected.

**PRAYER**

For the reasons stated hereinabove and, in the facts, and circumstances of the present case, it is most respectfully prayed that this Hon'ble Tribunal be pleased to:

- a) Reject the contentions raised in the Reply Affidavit filed by Respondent Nos. 5 to 7 insofar as the same seek to dilute, divert, or deflect attention from the environmental degradation and public nuisance caused by uncontrolled horse movement, horse dung accumulation and associated activities within the Eco-Sensitive Zone of Matheran;
- b) pass appropriate order(s) in favour of the Applicants and against the Respondents, as may be deemed fit and proper in the interest of justice.

**AND FOR THIS ACT OF KINDNESS, THE APPLICANTS AS  
INDUTY BOUND SHALL EVER PRAY**

  
APPLICANTS  
Csumi Shinde Ketan Ramane

*Through*

A handwritten signature in black ink, appearing to read 'Tushar', enclosed within a large, loopy oval stroke.

**CHAMBERS OF TUSHAR KUMAR**

*Advocates, Consultants & Solicitors*

**S-210, FIRST FLOOR**

**GREATER KAILASH - II**

**NEW DELHI-110 024**

**+91 88006 70133**

**Chambers@tusharkumar.in**

**DATE: 03.06.2026**

BEFORE THE NATIONAL GREEN TRIBUNAL  
WESTERN ZONE BENCH, PUNE  
ORIGINAL APPLICATION NO. 210/2024 (WZ)

IN THE MATTER OF:

SUNIL RAMCHANDRA SHINDE & ANR.

VERSUS

STATE OF MAHARASHTRA & ORS.

AFFIDAVIT



I, Sunil Ramchandra Shinde, S/o Ramchandra Shinde, aged around 63 years, R/o Kushal Niketan, Matheran Taluka, Karjat district, Raig Maharashtra-410 102, presently at Karjat, do hereby solemnly affirm and state as follows:

1. That I am the Applicant in the present matter and am well conversant with the facts of the case and therefore competent to swear the present Affidavit.
2. That the accompanying Rejoinder has been drafted under my instructions, the contents thereof are true and correct to the best of my knowledge.
3. That the present affidavit is being sworn in support of the accompanying Rejoinder placed before this Hon'ble Tribunal.



*Shinde*  
DEPONENT

VERIFICATION:

I, Sunil Ramchandra Shinde, the Deponent named above, do hereby verify that the contents of Paragraphs 1-3 of the present Affidavit are true and correct to my knowledge and that no part of it is false and nothing material has been concealed therefrom.

Verified at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_, 2026.

*Shinde*  
DEPONENT



BEFORE ME

*Pramod*

**NOTED & REGISTERED**  
Page No... 51 ..... Sr. No. 213 .....  
Notary Regd. No. .... 2 .....  
Date..... 31.6.2026 .....

**ADV. PRAMOD NATHURAM SURVE**  
NOTARY, GOVT. OF INDIA  
Room No. 7, Third Floor, Wing-8,  
Shri Tulsi Angan Society, Karjat,  
Near Shivaji Maharaj Statue,  
Tal. Karjat, Dist Raigad,  
Regn. No. 50929

BEFORE THE NATIONAL GREEN TRIBUNAL

WESTERN ZONE BENCH, PUNE

ORIGINAL APPLICATION NO. 210/2024 (WZ)

IN THE MATTER OF:

SUNIL RAMCHANDRA SHINDE & ANR.

...APPLICANTS

VERSUS

STATE OF MAHARASHTRA & ORS.

...RESPONDENTS

AFFIDAVIT



I, Ketan Ramesh Ramane, S/o Ramesh Dagadu Ramane, aged around 34 years, R/o Indira Nagar, Mahatma Gandhi Road, Matheran Taluka, Karjat District, Raigad, Maharashtra – 410102, presently at Karjat, do hereby solemnly affirm and state as follows:

4. That I am the Applicant in the present matter and am well conversant with the facts of the case and therefore competent to swear the present Affidavit.
5. That the accompanying Rejoinder has been drafted under my instructions, the contents thereof are true and correct to the best of my knowledge.
6. That the present affidavit is being sworn in support of the accompanying Rejoinder placed before this Hon'ble Tribunal.



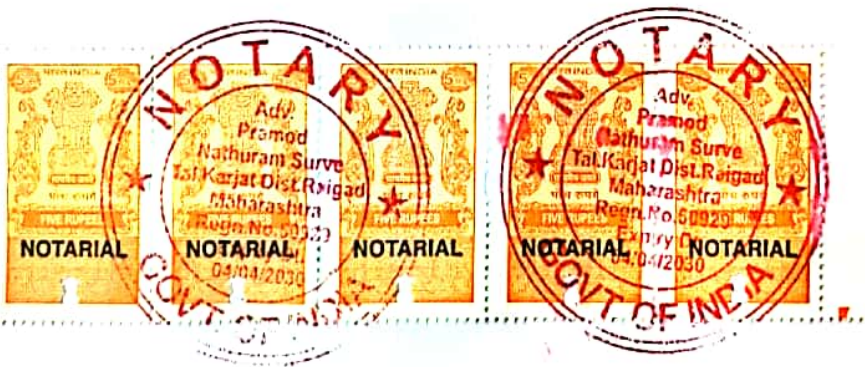
*Kamane*  
DEPONENT

**VERIFICATION:**

I, Ketan Ramesh Ramane, the Deponent named above, do hereby verify that the contents of Paragraphs 1-3 of the present Affidavit are true and correct to my knowledge and that no part of it is false and nothing material has been concealed therefrom.

Verified at \_\_\_\_\_ on this \_\_\_\_\_ day of \_\_\_\_\_, 2026.

*Kamane*  
DEPONENT



**NOTED & REGISTERED**  
Page No. 51 ..... Sr. No. 213 .....  
Notary Regd. No. 2 .....  
Date 3/6/2026 .....

**BEFORE ME**

*Pramod*  
**ADV. PRAMOD NATHURAM SURVE**  
NOTARY, GOVT. OF INDIA  
Room No. 7, Third Floor, Wing-8,  
Shri Tulsi Angan Society, Karjat,  
Near Shivaji Maharaj Statue,  
Tal. Karjat, Dist Raigad,  
Regn. No. 50929

IN THE SUPREME COURT OF INDIA  
CIVIL ORIGINAL JURISDICTION  
I.A. NO. 79569 OF 2024  
AND  
I.A. NO. 79576 OF 2019  
IN  
WRIT PETITION (CIVIL) NO. 202 OF 1995

**IN THE MATTER OF:**

T. N. Godavarman Thirumulpad ...Petitioner  
Versus  
Union of India and Others ...Respondents

**ADDITIONAL AFFIDAVIT ON BEHALF OF  
RESPONDENT – STATE OF MAHARASHTRA**

I, Kishan N. Jawale, District Collector, Raigad and Member Secretary, Matheran Monitoring Committee, Dist. Raigad, Maharashtra, Presently at Raigad, do hereby solemnly affirm and state as under:-

1. I say that the present Affidavit is in continuation of the Affidavit of Compliance filed by the answering Respondent on 22.10.2024.
2. I say that this Hon'ble Court vide order dated 24.07.2024 had directed the Monitoring Committee as follows:  
*"10. Insofar as the report with regard to the proposal with regard to use of paver blocks, which the Government proposes to use in consultation with the IIT Mumbai is concerned, the same would be considered in the month of October, 2024 i.e. after monsoon.*
11. *We further direct the Monitoring Committee to file an affidavit with regard to the paver blocks as well as the streets / roads on which plying of e-rickshaws would be permitted."*
3. I say that, in view of the aforesaid directions, the answering Respondent had submitted a draft report dated 14.10.2024 by way of the its Affidavit of Compliance dated 22.10.2024.
4. It is submitted that the final report from IIT Bombay titled as *"Advisory Support on the use of Clay-based paver blocks for roads in Matheran Hill Station Municipal Council"* has been received on 12.11.2024. A true copy of the Final Report dated





14.10.2024 issued by IIT Bombay is annexed herewith and marked as Annexure-R-1 (Page No. \_\_\_\_\_).

5. I say that in view of the above, this Hon'ble Court may pass appropriate order(s) and / or directions as it deems fit, in the interest of justice.

6. That no new facts and grounds have been pleaded in this Affidavit.

*Kishan N. Jawale*  
(Kishan N. Jawale)

Collector Raigad and  
Member Secretary of  
Matheran Monitoring Committee  
Maharashtra State

VERIFICATION

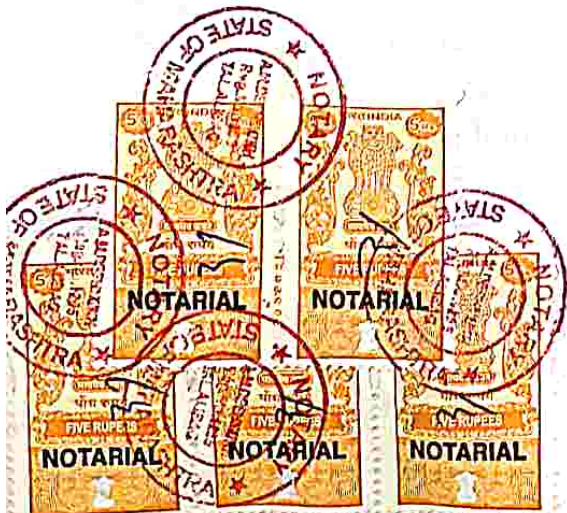
I, the abovenamed deponent, do hereby solemnly affirm and state that whatever stated herein above is true to the best of my knowledge and information derived from the records and files maintained in the office and I believe the same to be true.

Solemnly affirmed at this 26<sup>th</sup> day of November, 2024 at Raigad.

Drawn By:-  
Mr. Bharat Bagla, Adv.

*Kishan N. Jawale*  
(Kishan N. Jawale)

Collector Raigad and  
Member Secretary of  
Matheran Monitoring Committee  
Maharashtra State



**BEFORE ME**

*Kishan N. Jawale*  
**AMIT M. DESHMUKH**  
NOTARY STATE OF MAHARASHTRA  
ALIBAG.  
REGN. NO. 1285  
Valid upto 26/05/2029

Noted and Registered  
at Serial Number. 1440  
Date : 26 NOV 2024



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*By hand*

Prof. B V S Viswanadham  
Professor, Department of Civil Engineering

No. IITB/BVSV-12/24-25/1

Date: November 12, 2024

To

Chief Officer  
Matheran Hill Station Municipal Council (MHSMC)  
Tal-Karjat, Dist.-Raigad, MATHERAN-410102

(Job No. DRD/CE/BVSV-12/24-25)

Sub: Submission of advanced copy of the report entitled "Advisory support on the use of Clay-based paver blocks for roads in Matheran Hill Station Municipal Council"

Dear Sir,

This is in continuation of revised report submission made through email dated October 14, 2024 (Copy attached). Please find herewith three bounded copies () of the report for your kind purview and approval.

This marks the completion of the assignment.

However, please do not hesitate to contact me further clarifications, if any. /

Thanking you in advance for your time and kind consideration.

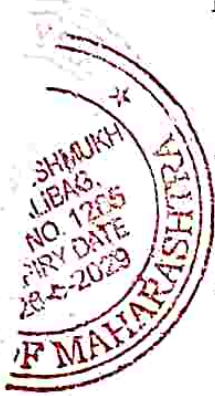
With regards,

✓ Encl: as above

Yours sincerely,

*BVSVISWANADHAM*  
12/11/2024  
(Prof. B V S Viswanadham)

वि. वी. एस. विश्वनाथम  
Dr.-Ing. B. V. S. Viswanadham  
प्राध्यापक / Professor  
सिविल अभियंत्रण विभाग  
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# 1209

## Submission of a REVISED version of Clay base paver block report to Matheran Council

From Prof B V S Viswanadham <viswam@civil.iitb.ac.in>  
 To Mcomatheran <mcomatheran@gmail.com>  
 Date 2024-10-21 19:10

Revised BSVS 12 MC Paver block Oct 14 2024 Oct 21 2024.pdf (~1.6 MB)

Dear Rahul ji,

Greetings!

Thank you for your inputs/observations made on the draft report submitted by the undersigned on Oct 14 2024 in connection with the subject mentioned above.

I have added about high rainfall intensity and restrictions of non-usage of cement or cementitious material with reference Fig. 2.5 (clearly it can be seen).

I have also signed at selected locations with stamp. I have not changed the date of the report.

I submitted for your purview and necessary action. Thanking you and your team and also Matheran Council for giving this opportunity of interacting with you all.

Submitted.

Regards,  
 BVS Viswanadham

----- Original Message -----

Subject: Submission of draft version of Clay base paver block report to Matheran Council  
 Date: 2024-10-14 17:20  
 From: Prof B V S Viswanadham <viswam@civil.iitb.ac.in>  
 To: Mcomatheran <mcomatheran@gmail.com>

Dear Rahul ji,

Greetings!

Please find herewith a draft version of the clay-based paver block report.

Kindly go through the same and arrange to give feedback by tomorrow evening.

Kindly note that I will be out of station for about 3-4 days from Oct 16 2024.

Thank you and your team for providing information and guidance.

With regards,

Yours sincerely,  
 BVS Viswanadham

Dr.-Ing. B V S Viswanadham  
 Professor  
 Geotechnical Engineering  
 Department of Civil Engineering  
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*BVS Viswanadham*  
 12/11/2024

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 Department of Civil Engineering  
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 Indian Institute of Technology Bombay  
 पौवा, मुंबई - ४०००७६

Dr.-Ing. B V S Viswanadham  
 Institute Chair Professor & Professor  
 Geotechnical Engineering  
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A Report on

**Advisory support on the use of Clay-based  
paver blocks for roads in Matheran Hill  
Station Municipal Council**

(Job No. DRD/CE/BVSV-12/24-25)

Submitted to:

**Chief Officer**

**Matheran Hill Station Municipal Council (MHSMC)**

**TAL-KARJAT, Dist.-RAIGAD, Matheran-410102**



**Department of Civil Engineering  
Indian Institute of Technology Bombay  
Powai, Mumbai - 400 076**

**October 14, 2024**

1 of 25

*B. V. S. Viswanadham*  
वि. वी. एम. विश्वनाथम  
Dr. -Ing. B. V. S. Viswanadham  
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Indian Institute of Technology Bombay  
पवई, मुंबई-76 / Powai, Mumbai - 400 076.

## Advisory support on the use of Clay-based paver blocks for roads in Matheran Hill Station Municipal Council

### 1. Introduction

Matheran Hill Station Municipal Council (MHSMC) has approached IIT Bombay vide their letter No. MHMC/659/204-25 dated 13-06-2024 with a request to undertake the above work on the above subject. The project was undertaken with the approval of Dean (R&D), IIT Bombay as per project number Job. No. DRD/CE/BVSV-12/2024-2025 with the following scope of the work:

Based on clay-based paver block making material provided, clay-based paver block samples, previous technical reports the following is envisaged as the scope of the work.

- a) Laboratory testing of important geotechnical properties of clay-based paver block material (one type only) being used at Matheran
- b) Advising how clay-based paver block road stretches help in preventing soil erosion
- c) Highlighting advantages of Clay-based paver blocks over Conventional Cement concrete paver blocks
- d) Suggestions for improving mitigation measures for reducing erosion control
- e) Visit to the site (one only)

The scope of the project is only to provide technical advice on the geotechnical aspects mentioned above. It will be evolved based on the information made available by MHSMC. The above scope of the work does not include any cost towards field tests, monitoring/supervision at the site, and transport expenditure by IIT Bombay. The consultant (IIT Bombay) will not be able to comment/participate on the legal aspects of the mentioned scope above. It is proposed to evaluate the above within five weeks from the date of payment and submission of all technical data's to IIT Bombay.

The following documents were made available by MHSMC:

- a) Letter from Hon. Member Secretary, Matheran Monitoring Committee and District Collector, Raigad "Technical opinion regarding clay paver blocks", Rev. Branch. No. Rev./A02/Matheran/E-rickshaw- Paver Block/2023-24 dated June 11, 2024.
- b) Test report on Clay paver block being used in Matheran for Roads and Pathways by the Department of Civil Engineering, COEP Technological University, No. COEPTU/CED/TRANS/2022-23/485 dated March 17, 2023
- c) Review of Technical specifications for use of clay paver block for Matheran Pathway works for Mumbai Metropolitan Region Development Authority (MMRDA) by IIT Bombay dated March 9, 2016
- d) Video depicting cart pullers while transporting construction materials prior to the laying of clay-based paver blocks

## 2.0 Background

Matheran Hill Station Municipal Council (MHSMC) is responsible for looking after maintenance of roads in the Matheran area. In order to prevent erosion of the soil along pathways in the Council, with the help of MMRDA, 5 km of road stretches were provided with laterite clay-based paver blocks. The paved area width is about 5 m.

It was reported that the honorable Supreme court has stayed the work and sought for the technical opinion of using clay-based paver blocks in the Matheran council for mitigating erosion problems as well as easing transport problems.

On June 5, 2024, MHSMC team consisting of Shri Vijay Patil, Shri Abhimanyu Yelwande, Shri Nitin, Shri Rahul Ingale and Shri Kedkar and MMRDA team represented by Shri Arvind Dhable, Deputy Chief Engineer, MMRDA visited IIT Bombay and appraised about the project. It was informed that till the year 2013, there were no paver blocks along the paths at Matheran. Figure 2.1 shows the typical maneuvering difficulties faced by cart pullers while transporting material. MHSMC has provided Table 2.1 and it shows typical pavement layers and their thicknesses adopted for road section.

Table 2.1 Details of Pavement Layers and Thickness for Road Section

Sr. No.	Pavement Layers	Pavement thickness (mm)
1	Clay paver block	70
2	Wet Mix Macadam (WMM)	150
3	Granular Subgrade Base (GSB)	150
4	Soling	150



Figure 2.1 Typical situation of cart pullers along Matheran stretches

Further it was informed that both MMRDA and MHSMC partially completed installation paver blocks in the year 2014-15, considering eco-friendly requirements laid down at Matheran, installation of clay-based paver blocks (originated from Laterite clay from Chiplun, Ratnagiri district of Maharashtra). The specifications for the clay-based paver

blocks were checked by the pavement design expert from IIT Bombay in March 2016. In order to ease tourists' difficulties, the government initiated E rickshaws (with three passengers + 1 driver without any luggage) in December 2022. It was reported that the area will have about 5000 visitors per day and has 60 hotels and 300 homestays. Out of 56 km length, about 5 km of stretch could be completed by laying clay-based paver blocks. Further it was informed that vide S.O. 133(E) of MoEF dated 04 Feb 2023, city of Matheran was declared as Eco-Sensitive Zone.

Further, it was informed that during the hearing on Jan 10, 2024 before Hon. Supreme Court in the aforesaid case, learned standing council has sought the following clarifications

- a) "How can clay paver block prevent the soil erosion in the Matheran Municipal Council Limits?"
- b) "What are the advantages of clay paver blocks over concrete paver blocks, if any"
- c) "Slipperiness of clay-based paver block surfaces especially during monsoons on account of laying of clay-based paver blocks over roads/paths in Matheran council"

On September 29, 2024, Prof B V S Viswanadham, Professor, Department of Civil Engineering, IIT Bombay and Mr. Vineet Gajamer, Research Scholar, Department of Civil Engineering visited Mathern along with Shri Abhimanyu Yelwande, MHSMC and his team. The purpose of the visit is to check the status of clay-based paver blocks and how it is being used by pedestrians, horses, carts, and e-rickshaws and also to see the possibility of ingress of soil from adjacent soil surface to paved areas.

The following are observations made during the visit:

- a) Figure 2.2 shows a typical arrangement of hexagonal clay-based paver blocks with a horse footprint (almost as large as paver block dimensions). It was observed that over a period, clay-based paver blocks are subjected to typical radial cracking pattern and however, they are found to be intact (Fig. 2.2b)
- b) Figure 2.3 shows a view of clay-based paver block path along with laterite stone based path. It can be observed that undulated nature of laterite stone based path.

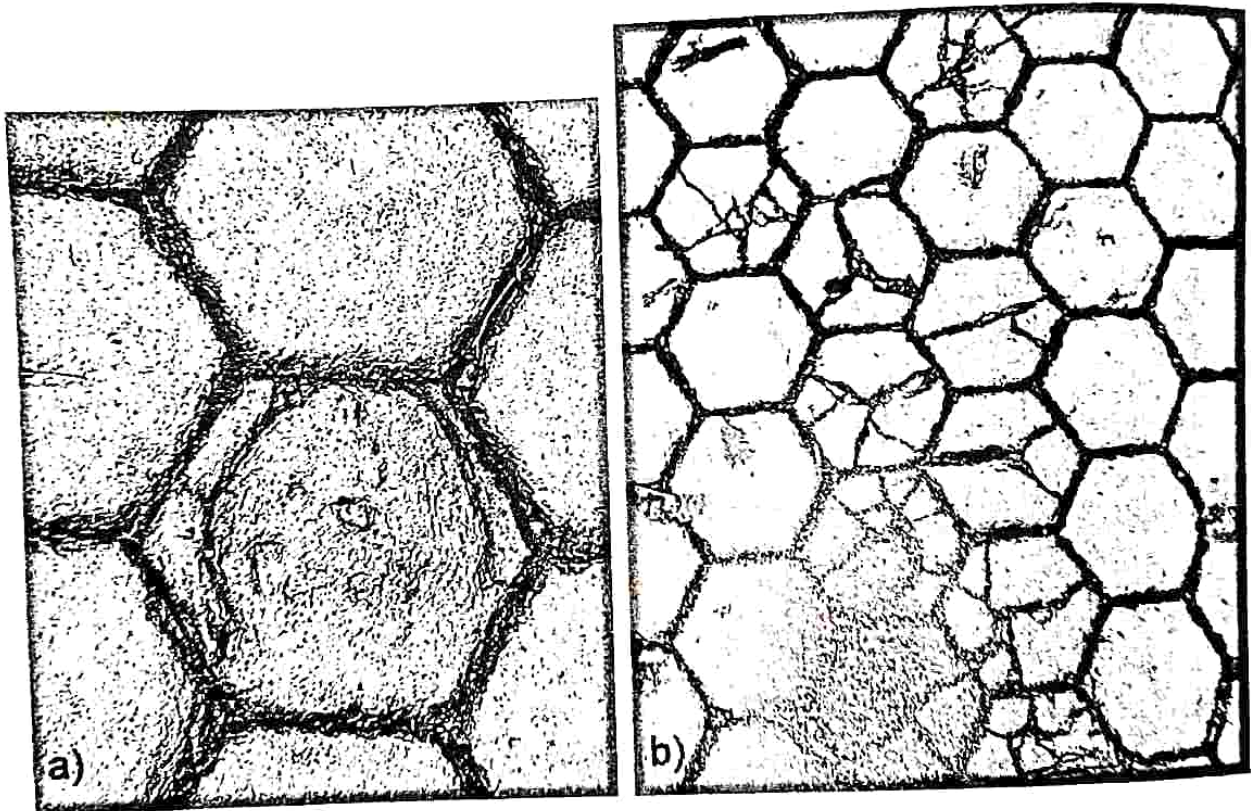
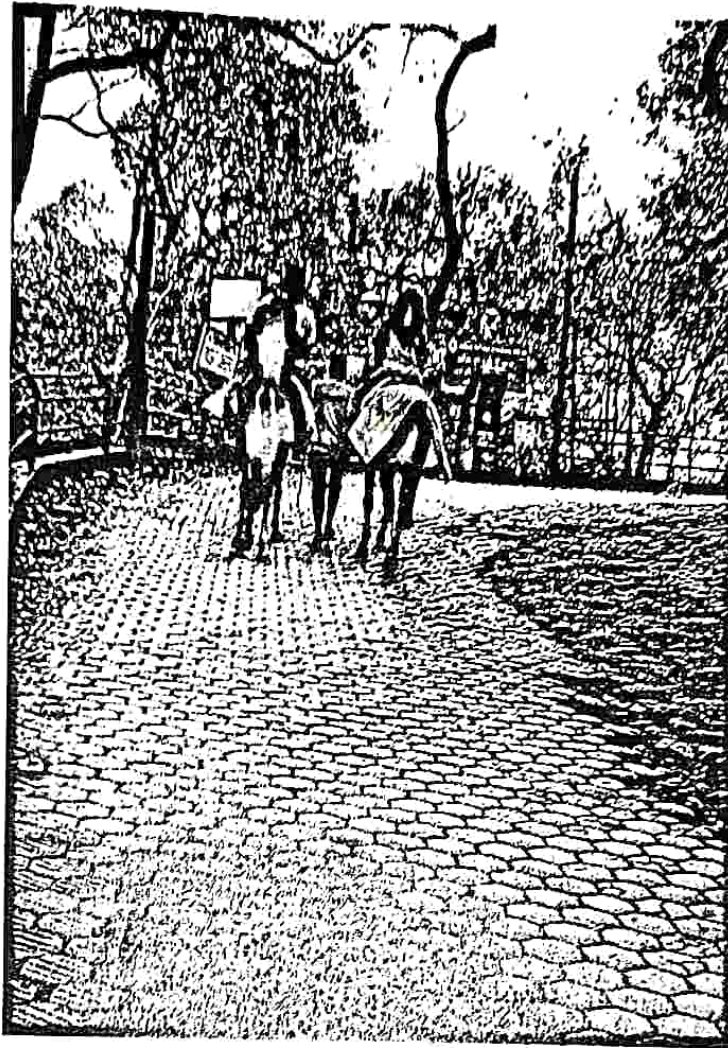


Figure 2.2 Status of clay-based paver blocks as on Sep 29, 2024: a) Typical clay-based paver block with horse footprint and b) Paver blocks subjected to radial cracks



**Figure 2.3 A view of clay-based paver block path along  
with laterite stone based paver path**

- c) Figure 2.4 shows the status of clay-based paver path at the market area, where the usage is very high. Mostly along the path stretches being used regularly, degree of weathering was noticed to be very high and towards edges, paver blocks were found to have serrations given to create roughness and however due to weathering and traction, degree of deterioration noticed to be on the higher side.

*BVS Vinayachandram*

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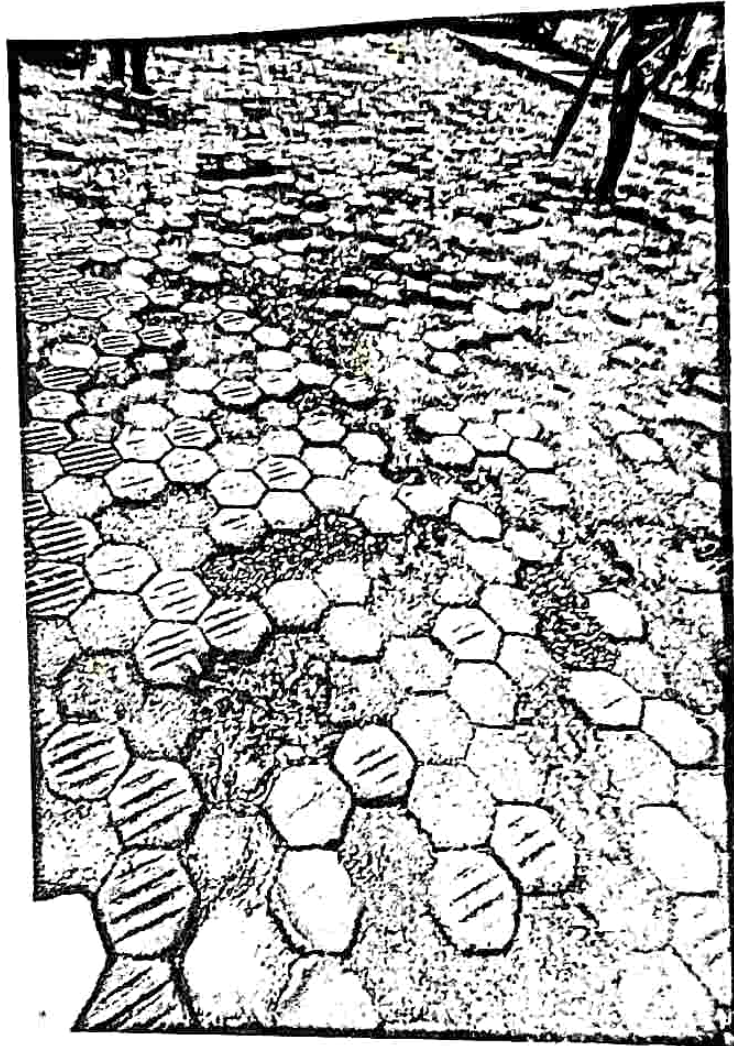
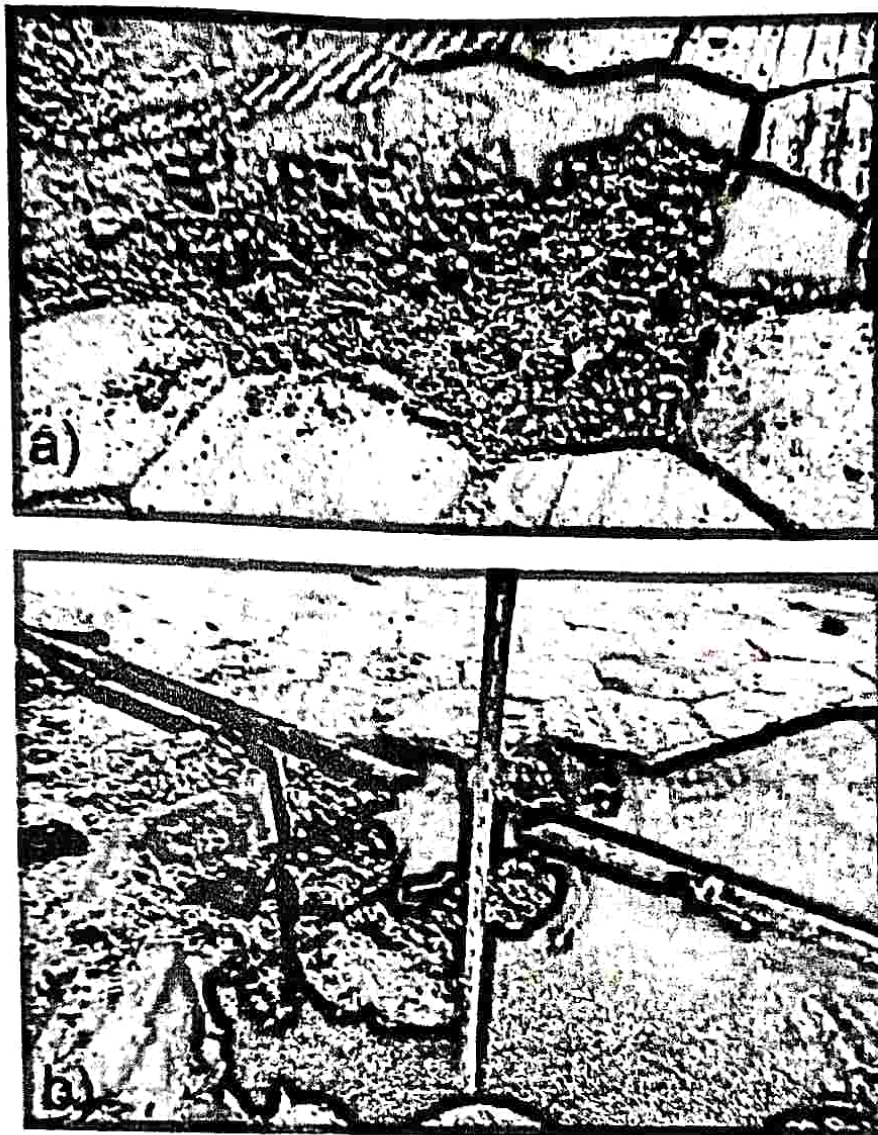


Figure 2.4 A view of clay-based paver blocks in the market area of Matheran Council

- d) In the Fig. 2.5(a), after removing paver block layer, red colour soil was noticed, and Wet Mix Macadam (WMM) layer could not be noticed. However, in Fig. 2.5 9b), after removing paver block layer, WMM layer could be observed with a different colour.
- e) It is to be noted from Fig. 2.5, no cement or cementitious binding material was used either in the sub-base or in bedding of thin layer of sand while fixing clay-based paver blocks.



**Figure 2.5 Trial pits exposed at two locations along clay-based paver blocks in the market area of Matheran Council a) Old Road and b) New Road**

- f) Figures 2.6 (a) and (b) show gabion wall bund protected stretch and a clay-based paver block stretch with mud layer. As can be seen from left side stretch, edges are found to cover with leaves and roughness is found to be intact (Fig. 2.6a). At this location (as shown in Fig. 2.6b), from right side ingress of rainwater runoff along with the eroded soil is observed.

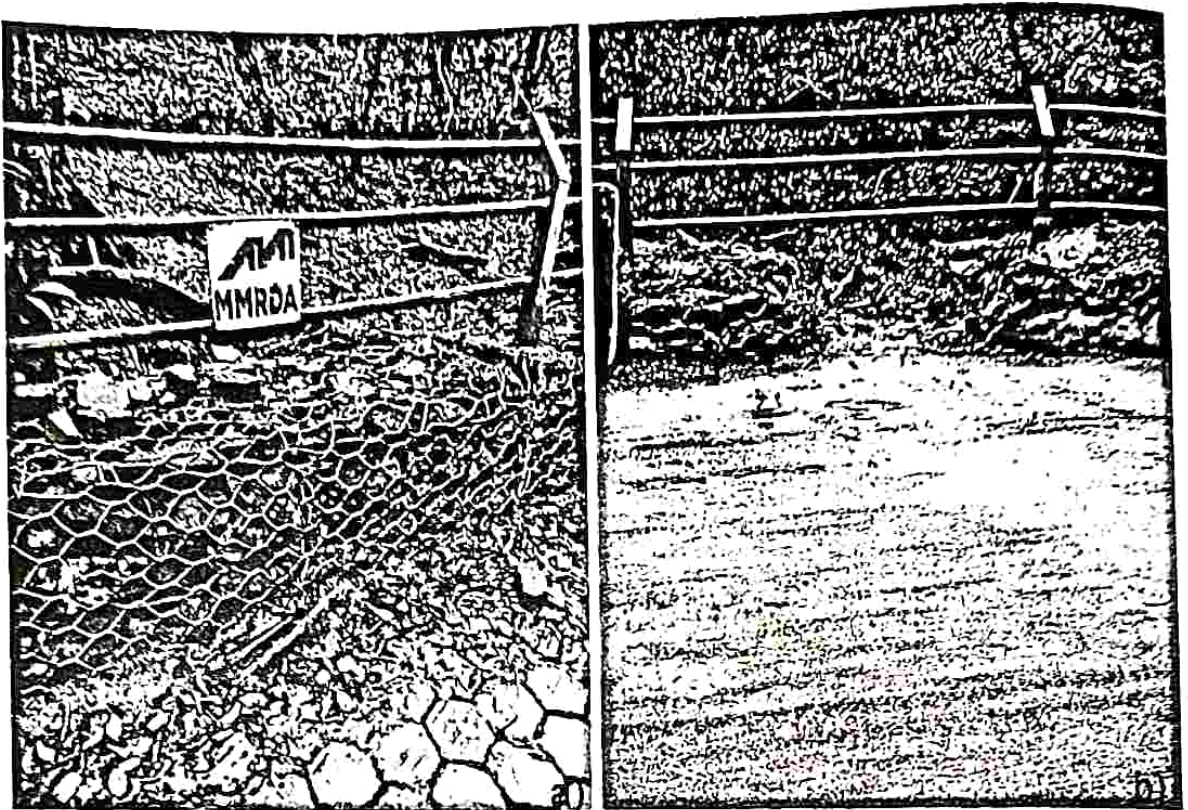


Figure 2.6 a) Gabion bund along left edge with adjacent soil surface below the clay-based paver block level and b) Mud covered stretch along with outlet opened for venting water

g) Figure 2.7 gives the typical cross-section of pathway adopted. It was given only slope as per the gradient and however, no camber was observed.

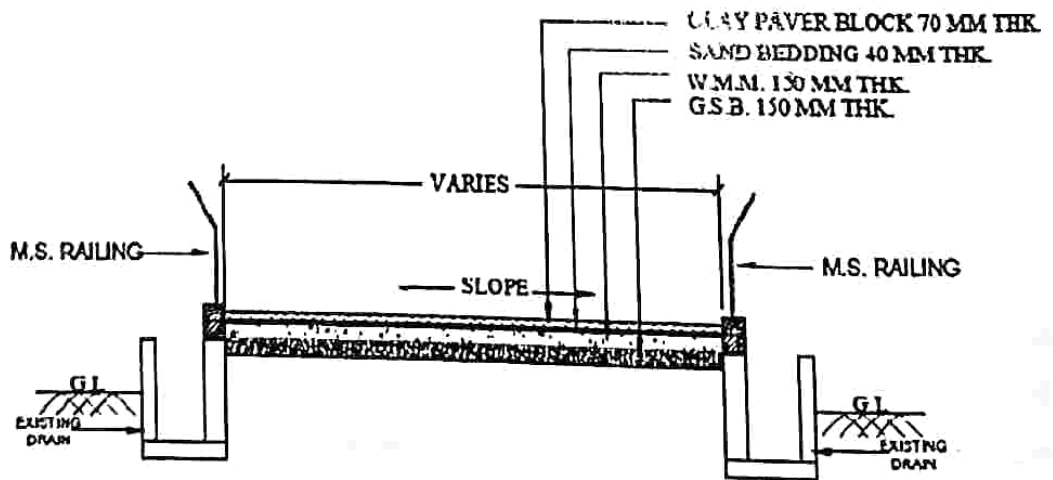


Figure 2.7 Typical cross-section of pathway adopted at the site (as provided by MHSMC)

- h) Figure 2.8 shows the typical status of paver block path area along market area in Matheran. This photo was taken from the video taken on October 3, 2024, provided by MHSMC. As can be seen, water flows along the surface of the paver blocks and inducing gradual weathering of clay-based paver blocks. It is to be noted that Matheran receives very high intensity of rainfall during June, July, August and September of each year.



Figure 2.8 Typical paver block stretch during the rain on October 3, 2024

- i) Along majority of stretches, it was observed that the degree of weathering of clay-based paver blocks was found to be severe and it is changing from clay serrations to plain surface on the clay-based paver blocks
- j) At the onset of weathering of clay-based paver blocks, roughness was found to decrease gradually.

### 3. Properties of soil being used for making clay-based paver blocks

Basic geotechnical properties of the laterite soil were determined following relevant parts of IS 2720 (Reaffirmed Year: 2020) and the results obtained have been summarized below in Table 3.1. The soil being used for making clay-based paver blocks is originated from laterite-based deposits area and it is in red colour and predominantly has major oxides, such as  $Al_2O_3$ ,  $SiO_2$  and  $Fe_2O_3$ .

Table 3.1 Summary of the properties of laterite soil

Property	Unit	Value
Specific Gravity ( $G_s$ )	-	3.05
Hygroscopic Moisture Content	%	8.09
Grain Size Distribution		
Gravel (>4.75 mm)	%	0
Sand (4.75 mm to 0.075 mm)	%	28.63
Silt (0.075 mm to 0.002 mm)	%	47.80
Clay (<0.002 mm)	%	23.67
Atterberg Limits		
Liquid Limit <sup>b</sup>	%	41.50
Plastic Limit	%	27.05
Plasticity Index	%	14.45
IS Classification	-	MI

<sup>a</sup>Hydrometer Analysis has been carried out for the fines fraction; <sup>b</sup>Casagrande's apparatus has been used.

Based on Table 3.1, the provided soil is found to have percentage fines (passing 0.075 mm sieve) of about 71.5%. The soil is classified as MI according to IS classification. Figure 3.1 shows grain size distribution curve obtained for the Chiplun based soil used for making clay-based paver blocks.

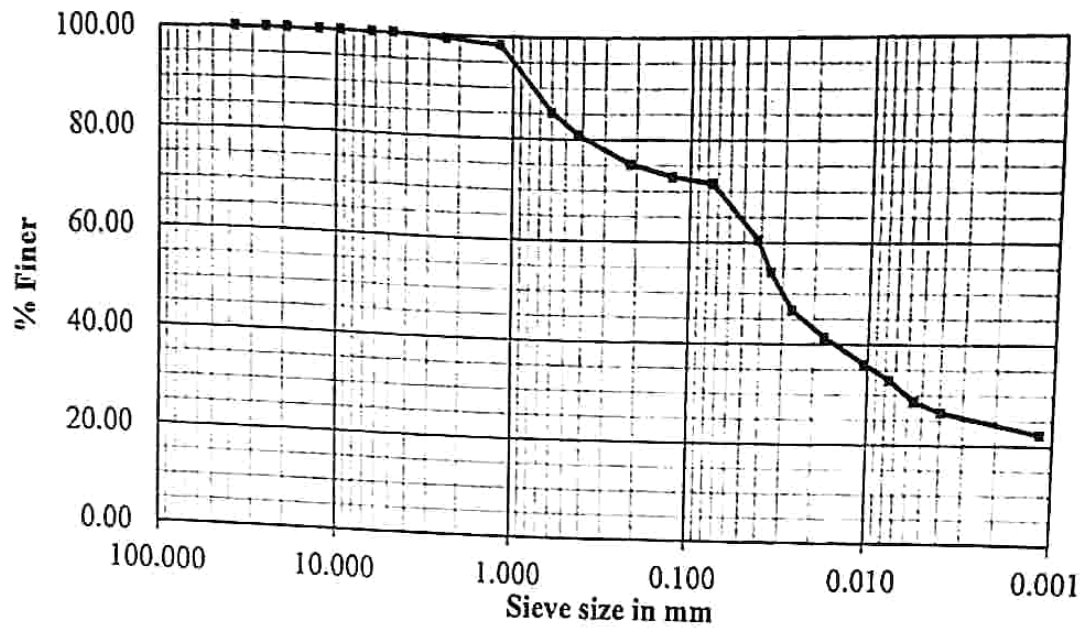


Fig. 3.1 Grain size distribution plot of laterite soil (coarse and fine fractions combined)

4. Testing of Paver blocks

4.1 Physical observations

The details of the paver blocks obtained by removal from roads in Matheran are shown in Figure 4.1. The paver blocks in Figure 4.1 have been named S1, S2, S3, S4 and S5 as per the weathering condition of the blocks.

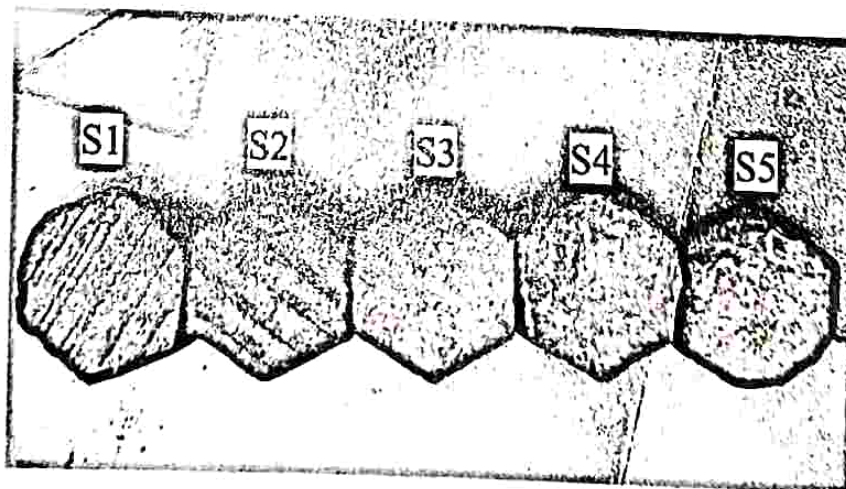


Figure 4.1 Paver blocks obtained by removal as per weathering condition

As can be noted, from S1 to S5, degree of weathering is clearly seen. At the onset of weathering, for S5, material along edges (Bevelled edges) was also found to be washed out.

A new fresh paver block (NS) was also provided for testing, which is shown in Fig. 4.2

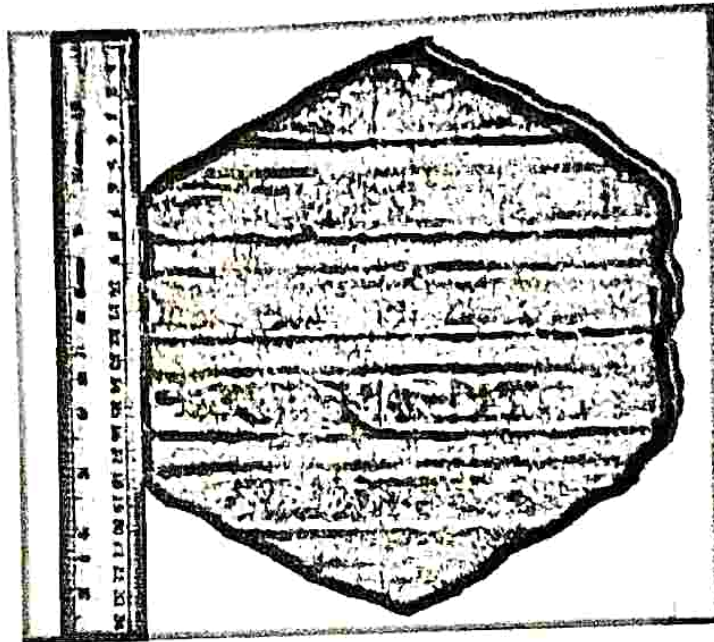


Figure 4.2 Plan view of new paver block sample (NS)

The details of the blocks based on the physical observations are given below in Table 4.1.

Table 4.1 Physical details of the paver blocks

Sample no.	Hexagon size (mm)	Height (mm)	Weight (kg)	Density (gm/cm <sup>3</sup> )
NS	105	68	3.8	2.19
S1	105	68	3.8	2.28
S2	105	65	3.8	2.19
S3	100	63	3.6	2.21
S4	100	60	3.2	2.22
S5	100	62	2.8	2.19

Samples NS, S1 and S5 were chosen for testing as they represent three different stages of usage for the paver blocks (Fig. 4.3). Two cube samples and two NX core (54 mm diameter) cylindrical samples were extracted from NS and S1. One cube sample and one NX core cylindrical sample were extracted from S5 due to less available working area due to weathering. Split tensile test (ASTM D396-2021) and compressive strength tests were conducted on the obtained samples. The results obtained for the following 5 samples are provided in Tables 4.2 and 4.3

Table 4.2 Split tensile test results

SPLIT TENSILE STRENGTH		
Sample ID	Load, P (kN)	$\sigma_t$ (MPa)
NS-1	6.6	1.57
NS-2	5.2	1.44
S3-1	13.8	3.29
S3-2	11.8	2.89
S5-1	7.2	2.00

Table 4.3 Compressive strength test results

COMPRESSIVE STRENGTH			
Sample ID	Load, P (kN)	Area (mm <sup>2</sup> )	$\sigma_c$ (MPa)
NS-1	67.8	2501.312	27.11
NS-2	63	2445.18	25.76
S3-1	121.7	2491.93	48.84
S3-2	95.7	2495	38.36
S5-1	45.7	2712.096	16.85

After testing the samples, the first observation that can be made is that the samples obtained from S3 appear to be stronger compared to NS and S5 samples. On carefully observing the physical appearance of S3 with other samples, differences can be clearly noticed in terms of the colour of the sample and its constituents.

*Dr. B. V. S. Vinwanadham*

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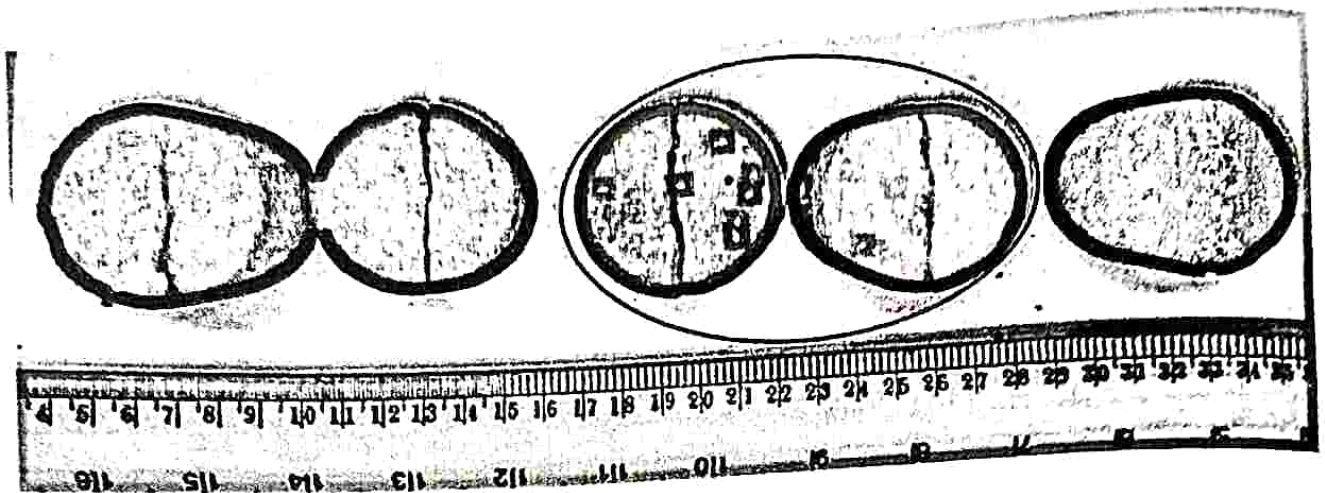


Figure 4.3 Samples after conducting split tensile test highlighting variation of paver blocks

As per IS 15658 (2006) NS and S5 do not meet the requirements of compressive strength of 35 MPa for 'light traffic' for concrete paver blocks. However, S3 samples have produced an average compressive strength of 43 MPa which suffices the compressive strength of 40 MPa required for 'medium traffic'. The tensile strength recorded for S3 is also comparatively higher than that obtained for NS and S5.

It is suggested that the clay paver blocks to be used must have a **compressive strength of a minimum of 40 MPa** to cater to the high footfall in the tourist place for a durable and smooth functioning of the system.

As per IS: 15568 (2006) abrasion resistance is recommended. Abrasive wear refers to the loss of material from a specimen's surface due to mechanical action. As can be noticed from Table 4.1, weight of paver block sample reduced from 3.8 kg for NS to 2.8 kg for S5, loss of weight is about 1000 g. This might have occurred over a period of Six to Seven Years.

### 5 Analysis for clay paver block as a measure to reduce erosion

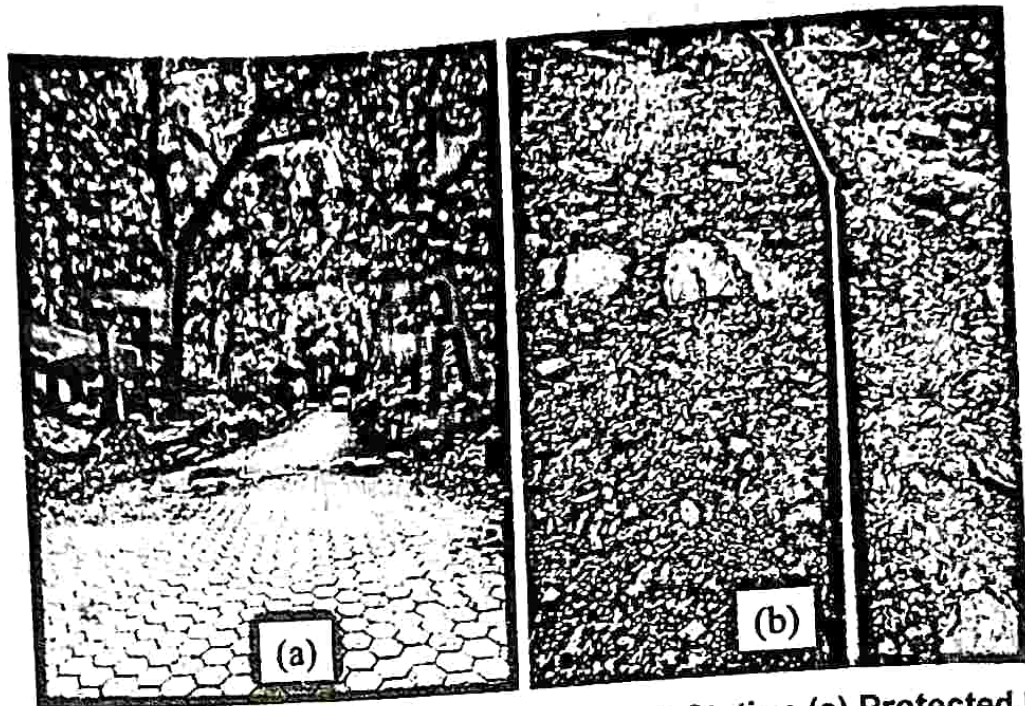
The soil loss that can occur due to rainfall can be explained by the Universal Soil Loss Equation (USLE):

$$A=R \times K \times LS \times C \times P \quad (5.1)$$

Where:

- $A$  = Estimated soil loss (tons/acre/year)
- $R$  = Rainfall-runoff erosivity factor
- $K$  = Soil erodibility factor (calculated earlier)
- $LS$  = Slope length and steepness factor
- $C$  = Cover management factor
- $P$  = Support practice factor (for erosion control measures)

The placement of clay paver blocks provides a full cover over the soil for which the value of  $C$  would be around 0.03; for various crops, a typical value of  $C$  is around 0.2. This explains that the soil loss would be reduced by around 33 times by the implementation of the clay paver blocks (Rubianca et al., 2018). The calculated values of  $R$ ,  $K$ ,  $LS$ ,  $C$ , and  $P$  are 0.54, 413.32, 10, 0.9 and 0.03. This results in a loss of soil loss of 2027 tons/acre/year and with the introduction of paver blocks this value reduces to 60.82 tons/acre/year with  $C=0.03$ . Definitely, with the provision of clay-based paver blocks, loss of soil mass reduces by 97%. This is a significant contribution of paver blocks in reducing the erosion of soil mass and this was calculated by using USLE (eq. 5.1). However, with the migration of water on the surface, clay-based paver blocks themselves are subjected to loss of material (as shown for Sample S5 in Fig. 4.1).



**Figure 5.1 Condition of roadways in Matheran Hill Station (a) Protected by paver blocks (b) Unprotected Road showing exposure of pipeline caused due to heavy erosion**

The above is evident from the raw path available at Matheran and clay-based paver paved area (Fig. 5.1). This answers the superior performance of clay-based paver blocks in preventing soil erosion in Matheran Municipal Council limits. Moreover, erosion of unpaved areas increases due to variable gradients in the council limits. This results in the loss of fines into downstream areas of Matheran.

## 6 Summary and Recommendations

Based on the above observations, considering heavy rainfall intensity in Matheran council area, and requirement of ecofriendly material usage, the following recommendations evolved.

### 6.1 Advantages of clay-based paver blocks over conventional concrete blocks

- a) Clay-based paver blocks are made from natural materials and are more often environmentally friendly.
- b) Clay-based paver blocks offer better slip resistance, making them a safer option for areas that may get wet and provided adequate drainage is there. The texture of clay paver blocks provides good traction. A typical value of the coefficient of friction between steel and concrete is 0.4 to 0.7, and a similar coefficient of traction must exist between steel and clay-based paver blocks (it can be of the order of 0.5).
- c) Clay paver blocks have a lower water absorption rate compared to concrete pavers, allowing them to maintain better drainage in areas with heavy rainfall. This helps reduce water pooling and potential erosion on slopes.
- d) Clay pavers offer a natural, rustic appearance that blends well with the environment. Their colour and texture can enhance the visual appeal of pathways and outdoor areas, making them more attractive to visitors. Clay paver blocks are an eco-friendly paving option due to their sustainable sourcing from natural clay, which is abundant and often locally available, reducing transportation emissions. Their production process typically requires less energy than that of concrete, and advancements in technology have to be made them more efficient. Additionally, clay pavers are recyclable and reusable, minimizing waste and resource consumption at the end of their life cycle.

The above points highlight the advantage of clay paver blocks over concrete paver blocks.

### 6.2 Erosion control due to clay-based paver block surfaces and Slipperiness of clay-based paver block surfaces

In this section, an attempt has been made to discuss slipperiness of clay-based paver blocks surfaces especially during monsoons on account of laying of clay-based paver

blocks over paths. As discussed in Section 5, the use of paver blocks helps in reducing the soil erosion drastically. This was calculated based on universal soil loss equation.

- a) Clay-based paver blocks generally have good slip resistance due to their textured surface and natural material properties. However, they can become slippery under certain conditions, such as entry of eroding soil (mud) from lateral soil stretches, growth of algae, moss, etc. To some extent, this is evident from from Fig. 2.6 (b) and Fig. 6.1.



**Figure 6.1 Linking of lateral roads to the main clay-based paver path**

- b) As presented in Table 3.1, the soil used for making clay-based paver blocks has about 30% sand size particles ( $>0.0075$  mm), the natural texture of clay pavers provides good traction.
- c) Provision of adequate drainage and prevention of mud layer entering into paved areas reduce the slipperiness considerably.

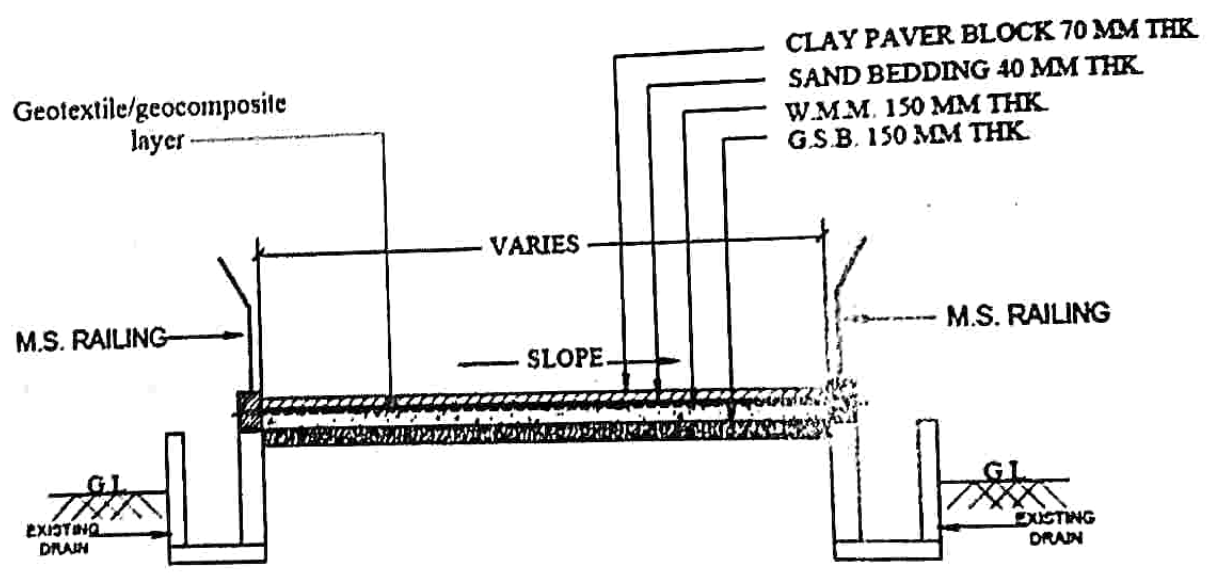
### 6.3 Suggestions for Improving the performance of clay-based paved areas and increasing slip resistance of clay-based paver block surfaces

- a) Due to accumulation of mud from adjacent areas. This can be seen at locations where lateral roads/paths meet clay-based paver main path (Fig. 6.1). This can be avoided by providing an appropriate cutoff drain to prevent migration of fines from lateral roads to main paths. This was observed at more than five to six locations. This will be more acute in high gradient areas. It is to be ensured that the situation shown in Fig. 2.6(b) shall not prevail and regular cleaning and maintenance is required to be executed.
- b) Along the existing stretches of clay-based paver blocks, it is suggested to adopt sand blasting procedure for the clay-paver based surface areas, which is a technique involves blasting the surface of the pavers with abrasive materials, for creating a rougher texture and enhancing traction. The roughened surface provides a better grip, reducing risk of slipping (especially in gradient areas) under wet conditions. This can be applied to existing pavers. It involves propelling fine abrasive particles (such as quartz sand having average particle size in the range of 0.5 mm to 1 mm) at high speeds onto the surface using compressed air and along with an adhesive, this shall be adhered to the existing surfaces using naturally available or equivalent. The impact of these particles removes contaminants, old coatings, or surface irregularities, resulting in a clean and uniform rough texture. This provides a stable, non-slippery surface, which can be achieved by this method by increasing the traction due to the improved texture. The thickness of the sand blasting layer shall not be more than 2 mm. Over time, sand blasting can wear down the surface of the pavers. Hence, it is required to be implemented just before every monsoon or alternative monsoon seasons for ensuring adequate slip resistance.

**6.4 Recommendations for improving undulations observed in populated areas and providing adequate drainage**

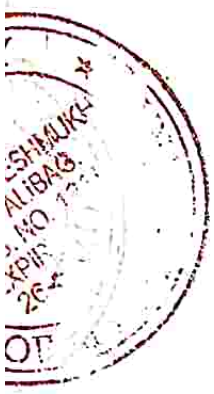
**a) Inclusion of a non-woven geotextile/geocomposite layering beneath the 40 mm sand bedding**

- Separation and Stabilization: Non-woven geotextiles act as a separation layer, preventing soil and aggregate from mixing. This helps maintain the integrity of the base layer, stabilizing weak soils and reducing the risk of settlement.
- Enhanced Drainage: These geotextiles allow for effective drainage, enabling water to flow through while preventing soil particles from clogging the drainage system. This is particularly beneficial in areas with heavy rainfall, helping to manage water runoff and reduce erosion.
- Increased longevity: By stabilizing the underlying soil and providing drainage, non-woven geotextiles contribute to the overall longevity of the paver system, reducing maintenance needs and extending the lifespan of the installation



**TYPICAL CROSS SECTION OF PATHWAY**

**Figure 6.2 Placement of geotextile/geocomposite layer below 40 mm sand bedding**



It is recommended to place a geocomposite which has non-woven geotextile layer (having minimum 300 gsm) with a biaxial geogrid layer (having minimum 40 kN/m tensile load). The provision of geocomposite layer helps in preventing undulating settlements of paver blocks, giving adequate resistance and in-plane drainage. This can be implemented in stretches, where the repair work is proposed to be undertaken.

#### **b) Cambering of roads**

Cambering of roads is a vital design feature that helps reduce erosion by improving water drainage and managing surface runoff. By creating a slight arch in the roadway, cambering directs water away from the centre towards the edges, minimizing water accumulation that can lead to erosion of the roadbed and surrounding soil. This design enhances road stability, particularly in hilly areas where heavy rainfall can exacerbate erosion risks. Studies have shown that effective cambering not only slows down runoff speeds, reducing soil dislodgment but also conserves adjacent landscapes by protecting them from excessive water flow.

#### **c) Contour bunds/ silt fences**

Contour bunds, constructed along the natural contours of the land, act as barriers that slow down water runoff and reduce soil erosion. The bunds can be constructed in the transverse direction of the roads aligned along the slope with non-woven geotextile wrapping to cut off the flow of the soil with water and reduce the flow velocity.

#### **d) Inclusion of lateral drains**

It is proposed to introduce a pervious concrete band of minimum 0.5 m width (covering the entire 5 m width). The thickness of pervious concrete band shall have to be 100 mm with 80 mm below the paved surfaced level. The idea of using pervious concrete is to provide lateral drainage and diverting water laterally. The pervious concrete will have a coefficient of permeability of the order of  $10^{-3}$  m/s. Along edges, the water flowing through pervious concrete is vented into side drains. Pervious concrete bands shall be placed at every 20 m c/c along length of the path. Figure 6.3 shows the typical plan view of existing clay-based paver blocks with pervious concrete band of 5 m width and approx. 0.5 m

breadth. This is proposed to be explored on pilot basis for about and then can be considered for the balance stretches.

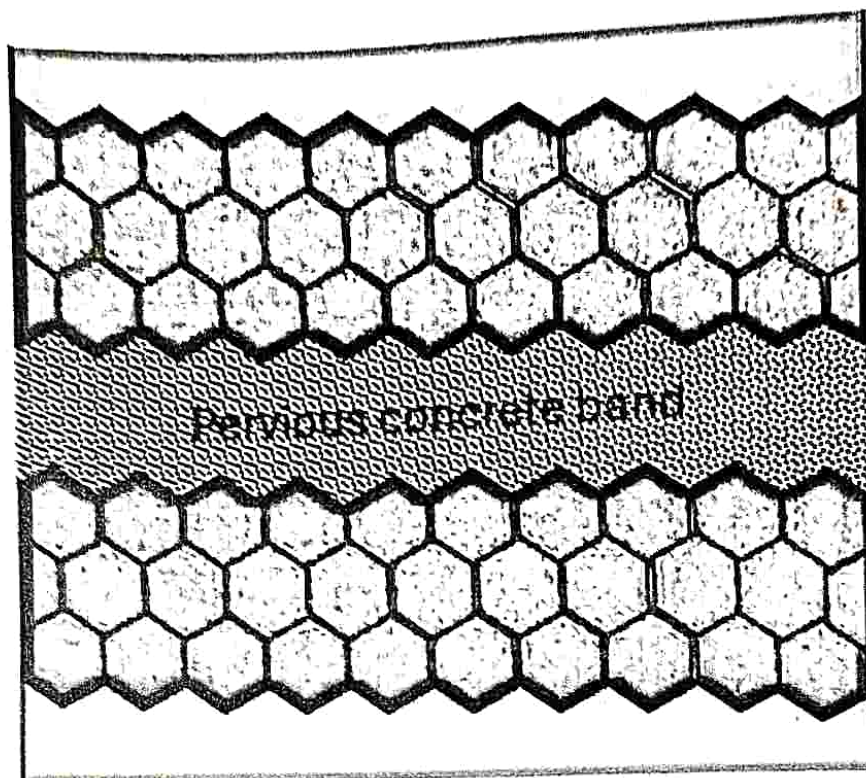


Figure 6.3 Schematic plan view of existing hexagonal clay-based paver blocks with pervious concrete band

**e) Rumble strips**

For regions with steep slopes, flat rumble strips with a low crest height of 20 mm can be provided for additional passive support of foot movement, especially in gradient areas. The rumble strips are typically made of Acrylonitrile Butadiene Styrene (ABS) rubber, which is an impact-resistant engineering thermoplastic (Fig. 6.4) material.



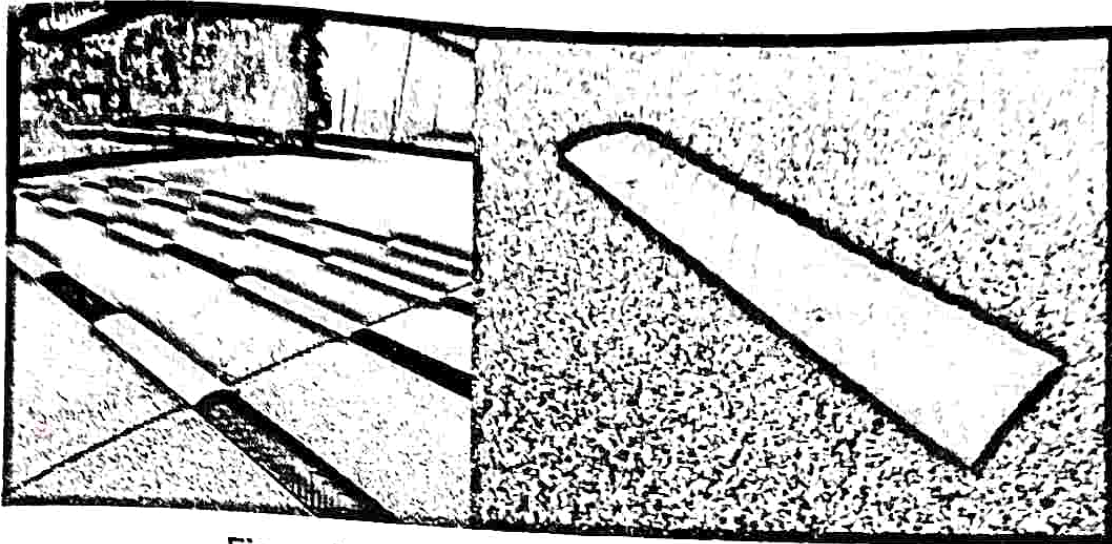


Figure 6.4 Typical rumble strips made of ABS

Based on the review of the information available in the open domain, analysis and interpretation of test results, the above recommendations and opinion evolved.

Submitted and recommended for approval.

*B.V.S. Viswanadham*

(Prof. B.V.S. Viswanadham)

वि. वा. एम. विज्ञानाध्यक्ष

Dr. -ing B V S Viswanadham

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October 14, 2024

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# Report on Health Camp for Equines Used for Work at Matheran, Maharashtra

Prepared by: People for the Ethical Treatment of Animals (PETA)  
India & Animal Rahat

21 December 2024

**Date of Camp:** 27 September 2024

**Conducted by PETA India & Animal Rahat in collaboration with Maharashtra State Animal Husbandry Department (AHD), Matheran.**

Participants from Maharashtra AHD: Dr Milind Mohan Jadhav, Livestock Development Officer, Karjat, and Dr Amol Kamble, Livestock Development Officer, Veterinary Dispensary/Hospital Matheran.

Participants from PETA India: Mr Mahesh Tyagi, Manager of Mechanisation Projects

Participants from Animal Rahat: Senior veterinarians Dr Rakesh Chittora and Dr Akash Jadhav, along with three veterinary assistants, Mr Dilip Shingana, Mr Bhimashankar Vijapure, and Mr Prasad Suryavanshi

**Location:** Sheds near Dasturi Point vehicle parking lot, Matheran

### **Introduction**

This report highlights the findings and outcomes of the health camp conducted on 27 September 2024 for equines used for work in Matheran, Maharashtra, by People for the Ethical Treatment of Animals (PETA) India and Animal Rahat, in collaboration with the Maharashtra State Animal Husbandry Department (AHD). The camp assessed the health and well-being of ponies used to transport goods between Dasturi Point and Matheran Hill Station.

The initiative was driven by the urgent need to address the neglect and suffering faced by these animals, many of which endure harsh working conditions, malnutrition, and inadequate veterinary care. Through a comprehensive veterinary evaluation and treatment program, the camp provided much-needed but only limited and temporary relief to the ponies since more relief is impossible when the animals continue to work.

Close to 95% of the ponies, i.e. 137 out of 148 ponies used to ferry goods attended the health camp and received medical care and vaccination. The animals were provided treatment after measuring the individual animals' body weight and deworming, and tetanus vaccination was administered. Several ponies had injuries, which were also treated. The registered union of pony owners, Maal Vahatakh Kalyankari Sanstha Dasturi Matheran's president (pradhan), Mr Anil Chavan, was also present during the health camp.

Numerous health issues were identified and treated accordingly. Observations from the health camp are listed below:

- 98.50% of animals fall in the very thin and thin (weak) category per the body condition scoring (BCS) system of 1 to 5, with 1 being skin and bone condition and five being obese. Out of the total of 137 animals assessed, 75 were of 1.5 BCS, 60 were of 2 BCS, and the rest of 02 animals were of 2.5 BCS. Most fall under the category of malnourished. Their physical conditions suggest they do not get balanced and appropriate food and could be plagued with parasites.
- The owners do not understand the importance of basic requirements of an equine, such as deworming and vaccination against tetanus, to which equines are vulnerable. Deworming was provided to all animals using Ivermectin 1 % oral solution and vaccinated against tetanus.

- Wounded animals were used for work. Many animals had unattended wounds on their withers, spines, and rumps due to carrying heavy loads on their backs from the entry point up hills and being used repeatedly, i.e., 5-6 times a day.
- 15% (21 of 137) of animals had swelling of fetlock joints, flexor tendons, and ligaments.
- Four ponies were found to suffer from atrophied eyeball impairing vision in one eye, and four ponies had corneal opacity.
- Two ponies were found to suffer from lameness, a painful condition for the ponies.
- Three ponies had illegal spiked bits in their mouths, weapons used to control them through pain.
- Dung is disposed of near the sheds where ponies are housed, exposing them to an environment where disease can spread.

#### Details of Ponies' Owners and the Number of Ponies

S.No	Name of ponies' owners	Number of Ponies
01	Mr Dutta Babu More	24
02	Mr Suresh Chavan	25
03	Mr Dinesh More	21
04	Mr Anil Chavan	28
05	Mr Vilas Chavan	20
06	Mr Subash Chavan	22
07	Mr Bala Parit	08
	<b>Total</b>	<b>148</b>

(Source: details provided by AHD veterinarian Dr Amol Kamble)

**Note:** On 15<sup>th</sup> August 2024, all 143 equines were vaccinated by the Animal Husbandry Department against rabies. (Source: detail provided by AHD vet Dr Amol Kamble)

Ponies forced to transport goods between Dasturi Point and Matheran Hill Station are in a neglected and pathetic condition as most of them are weak, emaciated, have wounds on their body, are not fed a balanced diet, and are denied appropriate veterinary care. They are forced to work around the year and carry heavy loads on their backs even when they are suffering from painful conditions.

#### Legal Violations observed during the health camp

##### 1. Use of Spiked Bits

The employment of spiked bits in equines contravenes the following:

- **Draught and Pack Animals Rules, 1965:** Rule 8 explicitly prohibits the use of any spiked stick or bit, harness, or yoke with spikes, knobs, projections, or any sharp tackle or equipment likely to cause bruises, swellings, abrasions, or severe pain to the animal.
- **Prevention of Cruelty to Animals Act, 1960:** Sections 3, 11(1)(a) prohibits causing unnecessary pain or suffering to any animal. The use of spiked bits inflicts such pain, violating this provision.
- **Animal Welfare Board of India (AWBI) Advisory:** On 20 February 2014, the AWBI issued an advisory to all states and union territories, urging enforcement of the

ban on spiked bits in equines. The advisory emphasises that using such devices causes unnecessary pain and suffering, contravening the Prevention of Cruelty to Animals Act, 1960, and associated rules.

## 2. Forcing Sick, Overworked, or Injured Animals to Work

- **Draught and Pack Animals Rules, 1965:** Rule 4 prescribes that ponies cannot carry more than 70 kgs at a time. Further, Rule 6 (1) and (2) mandate that ponies cannot be used for more than nine hours daily and 5 hours at a stretch. Based on the health condition in which these ponies were found, it is apparent that they are overworked, made to work without adequate rest, and forced to carry weights beyond permissible limits.
- **Prevention of Cruelty to Animals Act, 1960:** Section 11(1)(b) deems it an offence to employ any animal unfit for labour. Forcing animals with wounds, lameness, impaired vision or other health issues to work violates this provision.

## 3. Cruel and Unsanitary Living Conditions

- **Article 21 of the Constitution of India:** This fundamental right to life of all citizens includes the right to live in a balanced environment devoid of pollutants and toxicity. The dung from the ponies is improperly managed and indiscriminately disposed of. This exposes the ponies to living in areas where diseases are easily transmitted, and humans in the area are also constrained to reside in unsanitary conditions.
- **AWBI Guidelines:** The AWBI has issued two advisories regarding equines used for work: the "Animal Welfare Guidelines for Equines at Pilgrim Sites" and "Animal Welfare Guidelines for Equines at Equine Trade Fairs in India." These guidelines particularly emphasise maintaining hygienic conditions for animals to prevent disease, ensure their well-being and highlight the necessity of proper waste disposal and clean housing for equines.

## Recommendations

### 1. Transition to Electric Rickshaws (eKarts)

Replace ponies with eKarts to transport goods, offering a humane alternative that aligns with Matheran's eco-friendly policies.

### 2. Rehabilitate Ponies with Most Severe Health Issues Right Away

Ensure that animals diagnosed with severe or chronic health conditions, such as lameness or blindness, are immediately removed from work and placed in rehabilitation centres or sanctuaries.

### 3. Offer Rehabilitation for Any Other Ponies Relinquished

Ensure these animals are placed in rehabilitation centres or sanctuaries.



*Pictures 1 to 3: Measuring the body weight of individual animals before deworming and vaccination*





*Pictures 4 to 9: Animal Rahat while deworming the ponies using a 1% solution of ivermectin and vaccinating them against tetanus.*

**Body condition scoring (BCS)** – 98.50% of animals fall in the category of very thin and thin (weak) as per a body condition scoring system of 1 to 5, with 1 being skin and bone condition and five being obese. Out of the total of 137 animals assessed, 75 were of 1.5 BCS, 60 were of 2 BCS, and the rest of 02 animals were of 2.5 BCS.







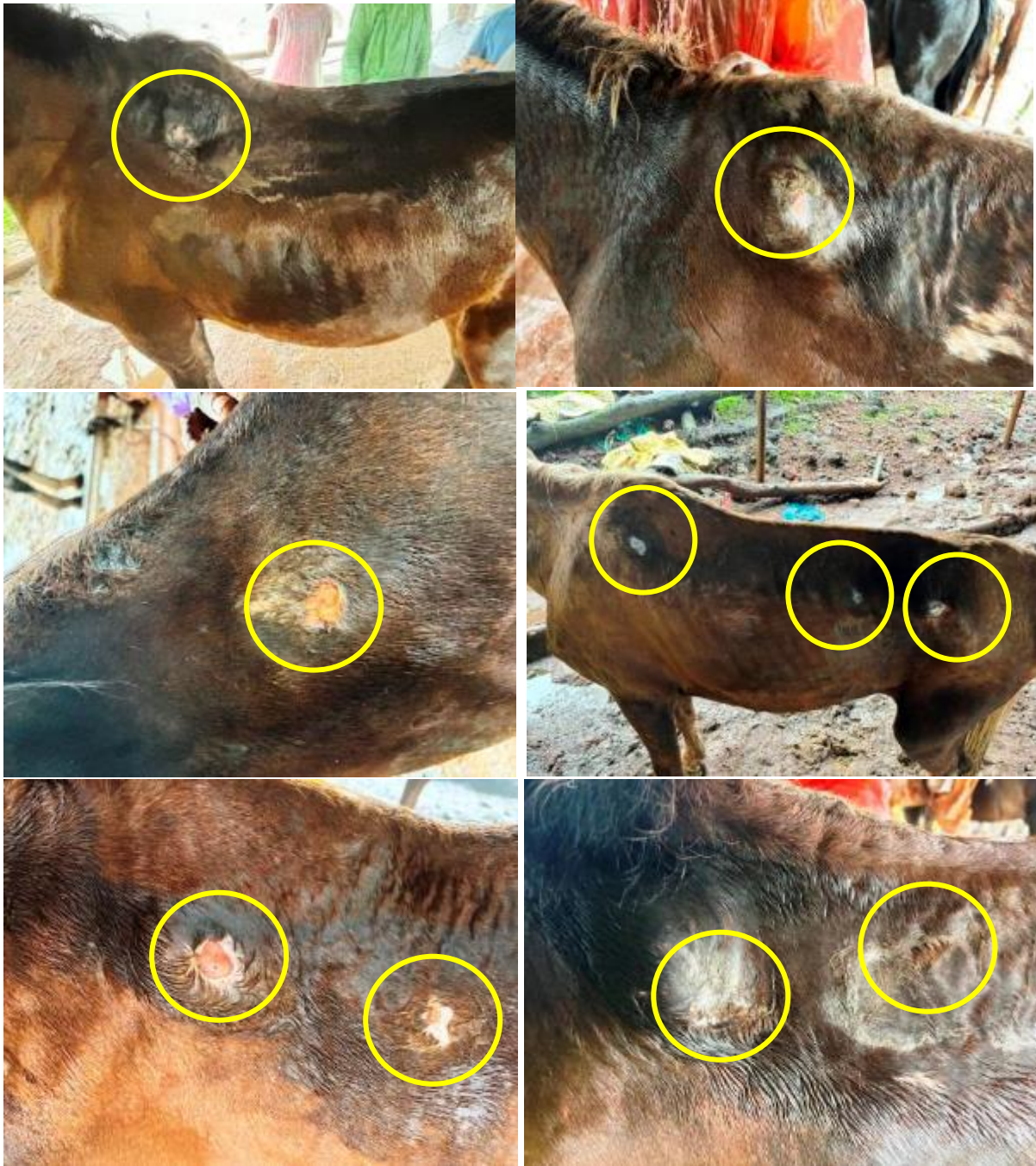
*Pictures 10 to 14: Animals were very thin (weak), i.e., body condition score of 1.5 (body condition scoring system 1-5) as their ribs are visible, spines, pelvis & shoulder are very prominent, and the neck and pelvis are concave without any filling*

**Wounds** – 25% (34 of 137) of animals had wounds on different body parts. Most of them had wounds on their wither, spine, and rump regions because their handlers did not clean the harness regularly, and these animals carry heavy loads for 4 to 5 rounds a day on their backs. Such wounds are caused by continuous friction between the harness and the animal's skin. Such a wound is quite painful. Despite this, their handlers were using these wounded animals for work and not allowing them to rest.





*Pictures 15 to 18: Deep open wounds on the point of the wither, and these animals were being used to transport goods.*







*Pictures 19 to 39: Wounds on the rib cage, spine, rump region, and base of the tail all have occurred due to harness while carrying heavy loads uphill and downhill.*



*Pictures 40 & 41: Deep wounds on both the knees and face (just beside the eye).*



*Picture 42 & 43: An open wound on the left thigh of an animal (L) and a wound on the right nostril (R).*



*Pictures 44 & 45: A horse was presented with various wounds on his whole body (L), and the wound is not properly cared for (R).*



*Pictures 46 to 51: Wounds at the pastern of animals (hobble lesions) occurred due to tethering of animals with nylon ropes at the pastern (pictures 46 to 50) and brushing wound/interference lesion at the medial aspect of the fetlock (Picture 51).*

**Swelling of joints and tendon/ligaments**—15 % (21 of 137) of animals had swelling of fetlock joints and flexor tendons and ligaments. These conditions are very common in animals forced to work and are irreversible. They become chronic due to the continuous use of animals for hauling heavy loads without proper treatment and rest. Once they become chronic, they cannot be reversed.



*Pictures 52 to 55: Swollen fetlock joints and flexor tendons.*

**Other conditions:** Few animals were observed with blindness from one eye (four animals) (atrophied eyeball), corneal opacity (two animals), lameness (two animals), diarrhoea (one animal), and hobble lesions (three animals).





*Pictures 56 to 59: Animals were observed to be blind from one eye.*



*Pictures 60 & 61: The animal had a deep crack in the hoof wall (L), and an animal was observed with a damaged hoof wall (R).*



Picture 62: The shoe is not the size of the hoof (it is fitted improperly, i.e., it is not on the hoof wall and is touching the sole).









*Pictures 63 to 84: The Animal Rahat team treats the animals for different conditions, such as wounds, lameness, eye problems, etc.*

**Spiked Bits:** During the health camp, the team observed a few animals with sharp spiked bits in their mouths. The team confiscated the spiked bits and replaced them with plain bits. Using sharp bits is prohibited per the Draught & Pack Animal Rules, 1965, and it is a punishable offence under this rule. Spiked bits are painful for the equines, and sometimes, they cut the animal's tongue and cause lip commissures, etc.



*Pictures 85 to 87: Spiked bits confiscated from three animals and replaced with plain bits.*



*Pictures 88 to 90 are temporary sheds where these ponies are kept at night. They keep 15-25 animals in one shed.*



*Picture 91: Animal waste is stored near the ponies' shed. This picture shows that dung has not been disposed of for long. A heap of dung near the sheds attracts flies, a nuisance to the animals and vectors for haemo protozoal diseases.*



*Picture 92: Such type of chaffed straw (sorghum/dry jowar) is fed to these ponies by their handlers. Apart from low nutritional value, it leads to colic or other gastrointestinal issues in ponies. Also, the high humidity in Matheran leads to the growth of mould, which is harmful to ponies.*



*Pictures 93 & 94: Animal Husbandry veterinarians welcomed Animal Rahat and the PETA India team in the morning before initiating the health camp (L), and the picture was taken in the evening after the health camp was completed (R).*

Minutes of the 2 nd Meeting of Monitoring Committee held on 2 nd June 2017		
Point	Direction	Responsible person/ Officer
Discussion and confirmation of minutes of meeting dated 2 <sup>nd</sup> June 2017	The committee directed that the words, "CO suggested that " in the last line at point no. 4 shall be deleted. Also word "Solid waste management" shall be added after "infrastructure material" in the fifth line at point no. 22. Beside this change, there is no other correction in the minutes. So Committee confirmed the minutes of last meeting.	RDC Raigad
Tourism Master Plan	Sr. Regional Manager MTDC apprised the Committee that the Tourism Master Plan has been submitted on 9 July 2013 to MoEF. Committee observed that issue has been neglected for long and requires more persuasion and expediting.	Regional Officer MTDC
Horse - Survey	Police Inspector, Matheran police station informed committee that the Horse - survey has been carried out. The number of licensed horses is 460. C.O. informed the Committee that Matheran Municipal Council has passed a resolution to ban Horse movement between the tapal peti to Regal naka stretch. The Committee took note of this.	PI Matheran police Station
Waste Water Management	Committee queried whether funds released under Innovative scheme for Waste Water Management, Sewage Water Treatment Plant for the financial year 2013-2014 has been utilised? MMRDA Planner told that she is unaware about the issue raised. Committee directed MMRDA Planner that she will coordinate with Officers of all Divisions of MMRDA dealing with various developmental issues of Matheran and to attend Matheran Eco Sensitive Zone Committee meeting to apprise the Committee on updated status.	MMRDA
Proposals	CO Matheran	CO Matheran



**विषय क्र. ११:- माथेरान नगरपरिषद हद्दीत मालवाहतुकीसाठी ई-टेम्पो सुरू करण्याबाबत.**

ठराव क्र. :- ११ माथेरान हे राज्यातील महत्त्वाचे पर्यटनस्थळ अगून पर्यावरण संवर्धनाच्या दृष्टीने केंद्र शासन व राज्य शासनाने माथेरान परिसर Eco Sensitive Zone (पर्यावरणदृष्ट्या संवेदनशील क्षेत्र) म्हणून घोषित केलेला आहे. तसेच माथेरान शहरामध्ये पर्यावरणाने संरक्षण व नैसर्गिक संतुलन कायम राखण्यासाठी वाहनबंदी लागू आहे. त्यामुळे नगरपरिषद हद्दीत सर्व प्रकारची मालवाहतूक, जीवनावश्यक वस्तूंची ने-आण तसेच हॉटेल, व्यावसायिक आस्थापने व नागरिकांना आवश्यक असलेल्या वस्तूंची वाहतूक प्रामुख्याने मानवी श्रमशक्तीच्या आधारे केली जाते.

माथेरान हे पर्यटनस्थळ असल्यामुळे वर्षभर पर्यटकांची मोठ्या प्रमाणावर ये-जा होत असते. त्यामुळे शहरातील हॉटेल, रेस्टॉरंट, दुकाने तसेच इतर व्यावसायिक आस्थापनांमध्ये विविध वस्तूंची मागणी मोठ्या प्रमाणावर असते. सद्यस्थितीत मालवाहतुकीसाठी केवळ मानवी श्रमशक्तीवर अवलंबून राहावे लागत असल्यामुळे वस्तूंची वाहतूक करणे अत्यंत कष्टदायक, वेळखाऊ व खर्चिक ठरत आहे. यामुळे नागरिक, व्यापारी तसेच व्यावसायिक आस्थापनांना अडचणी निर्माण होत आहेत.

माथेरान हा Eco Sensitive Zone असल्यामुळे येथे पारंपरिक इंधनावर चालणाऱ्या वाहनांना परवानगी देणे शक्य नाही. तथापि पर्यावरणास कोणतीही हानी न पोहोचवता, कमी आवाजाची, प्रदूषणमुक्त व लहान आकाराची बॅटरीवर चालणारी इलेक्ट्रिक मालवाहतूक वाहने (ई-टेम्पो / ई-कार्गो वाहन) मर्यादित स्वरूपात व नियमनबद्ध पद्धतीने सुरू करण्याची आवश्यकता असल्याचे सभेच्या निदर्शनास आल.

सदर ई-टेम्पो सुरू केल्यास जीवनावश्यक व दैनंदिन वापराच्या वस्तूंची सुलभ व जलद वाहतूक होण्यास मदत होईल, मालवाहतुकीसाठी लागणाऱ्या मानवी श्रमावरील ताण कमी होईल, तसेच पर्यावरणास कोणतीही हानी न पोहोचवता स्वच्छ व पर्यावरणपूरक वाहतूक व्यवस्था निर्माण होईल.

वरील सर्व बाबींचा विचार करून माथेरान नगरपरिषद हद्दीत Eco Sensitive Zone व वाहनबंदीचे नियम अबाधित ठेवून, पर्यावरणपूरक लहान आकाराच्या इलेक्ट्रिक मालवाहतूक वाहनांना (ई-टेम्पो) नियमानुसार व मर्यादित स्वरूपात सुरू करण्याबाबत तत्त्वतः मान्यता देण्यात येत आहे.

तसेच सदर बाबी संदर्भात संबंधित शासन विभाग, पर्यावरण विभाग, वन विभाग तसेच इतर संबंधित प्राधिकरणांकडून आवश्यक त्या परवानग्या प्राप्त करण्यासाठी आवश्यक पत्रव्यवहार करण्यात यावा व त्यानंतर नियमानुसार अंमलबजावणी करण्यात यावी, असे सभेने ठरविले आहे.

यासाठी आवश्यक त्या वित्तीय व प्रशासकीय मंजुरीस मा. सर्वसाधारण सभेकडून मान्यता देण्यात येत आहे.

सूचक : श्री. शिवाजी शांताराम शिंदे

अनुमोदक : श्री. केतन रमेश रामाणे

ठराव सर्वानुमते मंजूर

**विषय क्र. १२. :माथेरान नगरपरिषद हद्दीत 'टेंट कॅम्पिंग' वर बंदी आणणे बाबत.**

ठराव क्र.:१२ माथेरान गिरीस्थान नगरपरिषद हद्दीतील काही भागांमध्ये तात्पुरत्या स्वरूपात तंबू उभारून (Tent Camping) व पक्क्या स्वरूपाचे बांधकाम पर्यटकांसाठी निवास व्यवस्था करण्यात येत असल्याचे निदर्शनास येत आहे. सदर तंबू कॅम्पिंगमुळे घनकचरा निर्मिती, सांडपाणी व्यवस्थापनातील अडचणी, आग लागण्याचा धोका, जीवितास धोका, अपघात तसेच आपत्तीवेळी विपरीत परिणाम

माथेरान गिरिस्थान नगरपरिषद, माथेरान  
सर्वसाधारण सभा सोमवार दिनांक : १६.०२.२०२६ रोजीचे इतिवृत्त

माथेरान गिरिस्थान नगरपरिषद, सर्वसाधारण सभा सोमवार दिनांक :  
१६.०२.२०२६ रोजी दुपारी २.०० वाजता नगरपरिषदेच्या स्वर्गीय हिंदूहृदयसम्राट  
मा. बाळासाहेब ठाकरे सभागृहात आयोजित करण्यात आली. सदर सभेस खालीलप्रमाणे  
सन्माननीय सदस्य हजर होते.

१. श्री. चंद्रकांत र. चौघरी, नगराध्यक्ष
२. श्री. संतोष अ. शेलार, उपनगराध्यक्ष
३. श्री. केतन र. रामाणे, सदस्य
४. श्रीमती. लता भा. डेबे, सदस्या
५. श्री. शिवाजी शा. शिंदे, सदस्य
६. श्रीमती. रिझवाना अ. शेख, सदस्या
७. श्री. गौरंग रा. वाघेला, सदस्य
८. श्रीमती. प्रतिभा प्र. घावरे, सदस्या
९. श्रीमती. कमल रा. गायकवाड, सदस्या
१०. श्रीमती. सुरेखा ज. साळुंखे, सदस्या
११. श्री. सोहेल ब. महापूळे, सदस्य
१२. श्री. किरण अ. पेमारे, सदस्य
१३. श्रीमती. अर्चना आ. भिल्लारे, सदस्या
१४. श्रीमती. ऐश्वर्या र. लोरणे, सदस्या
१५. श्री. सुनील र. शिंदे, सदस्य
१६. श्रीमती. प्रियंका वि. कदम, सदस्या
१७. श्री. किशोर म. मोरे, सदस्य
१८. श्री. मनोज व. खेडकर, नाम. नि. सदस्य
१९. श्री. प्रविण व. सकपाळ, नाम. नि. सदस्य



JUNAID QURESHI &lt;advocatejunaidqureshi@gmail.com&gt;

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**REJOINDER ON BEHALF OF THE APPLICANTS IN THE MATTER TITLED AS -  
SUNIL SHINDE & ANR VS STATE OF MAHARASHTRA & ORS**

1 message

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**JUNAID QURESHI** <advocatejunaidqureshi@gmail.com>

5 June 2026 at 21:54

To: adv.manasi.joshi@outlook.com, poojanatu@yahoo.co.in, Tushar Kumar <chambers@tusharkumar.in>, aniruddha1488@gmail.com, rahul.garg@mgklegal.com, mcomatheran@gmail.com, "ADV. SANTOSH Akhade" <akhadesantosh87@gmail.com>, Deepali Bagla <deepali.bagla@gmail.com>

Dear all,

Please find the attached Rejoinder in the Subject captioned matter.

**JUNAID QURESHI****Advocate****CHAMBERS OF TUSHAR KUMAR****OFF ADDRESS:****S - 210 GREATER KAILASH - II****NEW DELHI****M.NO. +91 - 9654855894**

Rejoinder on behalf of Applicants- Sunil Ramchandra Shinde &amp; Anr. v. State of Maharashtra &amp; Ors..pdf

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